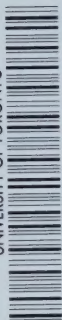


FACULTY OF DENTISTRY LIBRARY
UNIVERSITY OF TORONTO



3 1761 03924602 0



Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

P
Med
C

The Journal of the
CANADIAN DENTAL ASSOCIATION

Le Journal de
L'ASSOCIATION DENTAIRE CANADIENNE



480336
20.10.48

The official organ of the Canadian Dental Association.
Owned and published by the Association.

•

Office of Publication
CONSOLIDATED PRESS, LIMITED, 73 RICHMOND STREET W., TORONTO

VOL. 13 - - - - - 1947

CANADIAN DENTAL ASSOCIATION

DIRECTORY OF OFFICIALS, 1947-48

OFFICERS

<i>President</i> —J. K. Carver.....	1240 Union Ave., Montreal, Que.
<i>Immediate Past President</i> —V. D. Crowe.....	807 Prince St., Truro, N.S.
<i>Vice-President</i> —H. J. Merkeley.....	611 Medical Arts Bldg., Winnipeg, Man.
<i>Secretary-Treasurer</i> —Don W. Gullett.....	211 Huron St., Toronto, Ont.

BOARD OF GOVERNORS

H. M. Cline	1428 Medical-Dental Bldg., Vancouver, B.C.
H. Baden Powell	308 Southam Bldg., Calgary, Alta.
W. M. Blair.....	1005 McCallum Hill Bldg., Regina, Sask.
H. J. Merkeley, (<i>Vice-President</i>).....	611 Medical Arts Bldg., Winnipeg, Man.
Harvey W. Reid.....	195 Yonge St., Toronto, Ont.
G. H. Campbell	Orangeville, Ont.
S. J. Phillips.....	121½ Simcoe St., S., Oshawa, Ont.
J. K. Carver, (<i>President</i>).....	1240 Union Ave., Montreal, Que.
G. Ratté.....	140 rue St. Jean, Québec City, Qué.
A. J. Coughlan	75 Charlotte St., St. John, N.B.
V. D. Crowe, (<i>Past-President</i>).....	807 Prince St., Truro, N.S.
D. T. Waye	Charlottetown, P.E.I.

EXECUTIVE

J. K. Carver, (Chairman) ; H. J. Merkeley; Gustave Ratté; V. D. Crowe (ex-officio) ; Don W. Gullett.

CHAIRMEN OF STANDING COMMITTEES

Legislation—C. W. Sheridan.....	142 Laurier Ave., W., Ottawa, Ont.
Finance—H. J. Merkeley.....	611 Medical Arts Bldg., Winnipeg, Man.
Publications—R. P. Lowery.....	19 Glendonwyne Rd., Toronto, Ont.
Council on Dental Education—W. Scott Hamilton, Dean, Faculty of Dentistry, University of Alberta, Edmonton, Alta.	
Dental Health Education—R. R. McIntyre.....	714 Southam Bldg., Calgary, Alta.
Public Relations—Harry S. Thomson.....	18 Summerhill Gdns., Toronto, Ont.
Program—G. Ratté.....	140 rue St. Jean, Québec, Qué.
Ethics—Kenneth M. Johnson.....	314 Somerset Bldg., Winnipeg, Man.
Research—W. G. McIntosh.....	170 St. George St., Toronto, Ont.
By-Laws—J. S. Bagnall.....	78 Larch St., Halifax, N.S.
Necrology—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Nominating—Harvey W. Reid.....	195 Yonge St., Toronto, Ont.

CHAIRMEN OF SPECIAL COMMITTEES

Nomenclature—J. H. Johnson.....	230 College St., Toronto, Ont.
International Relations—Ernest Charron.....	1505 Crescent St., Montreal, Que.
Dental Services—D. S. Coons.....	Medical Arts Bldg., Hamilton, Ont.
Advisory—J. A. Bothwell.....	170 St. George St., Toronto, Ont.
Health Insurance—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Auxiliary Services—R. A. Rooney.....	523 Tegler Bldg., Edmonton, Alta.
Industrial Dentistry—C. A. E. McCabe.....	Valleyfield, Que.
Specialists & Specialization—Arnold Mitchell.....	1414 Drummond St., Montreal, Que.
War Memorial Scholarship—Gerald Franklin.....	1414 Drummond St., Montreal, Que.
Hospital Services—G. V. Fisk.....	170 St. George St., Toronto, Ont.
Appointment to National Cancer Institute of Canada—Don W. Gullett	
	211 Huron St., Toronto, Ont.
Group Insurance—Harvey W. Reid.....	195 Yonge St., Toronto, Ont.

The Journal of the Canadian Dental Association *Le Journal de L'Association Dentaire Canadienne*

Official Organ of the Canadian Dental Association
Owned and Published by the Association

Subscription Price Commencing January 1st, 1948 in Canada, Great Britain, the
United States and all other countries, \$3.00 per year.
Authorized as second class mail, Post Office Dept., Ottawa.

Editor-in-Chief

M. H. GARVIN, D.D.S., 314 Somerset Building, Winnipeg, Manitoba

Assistant Editor

T. R. MARSHALL, D.D.S., 1112 Temple Building, Toronto, Ontario

Associate Editors

- D. Trevor Waye, D.D.S., Charlottetown, Prince Edward Island*
Warren C. Oxner, D.D.S., Halifax, Nova Scotia
John F. Edgecombe, D.D.S., O.B.E., E.D., Saint John, New Brunswick
E. T. Bourke, D.D.S., Montreal, Quebec
T. R. Marshall, D.D.S., Toronto, Ontario
J. F. Morrison, D.D.S., Winnipeg, Manitoba
L. D. Haselton, B.A., D.D.S., Saskatoon, Saskatchewan
H. L. Freeland, D.D.S. Calgary, Alberta
H. M. Cline, D.D.S., Vancouver, British Columbia

Empire Correspondents

- J. B. Parfitt, M.R.C.S. Eng., L.R.C.P. (London), L.D.S., Eng., Reading, England*
Bryan J. Wood, L.D.S. R.C.S. (Eng.), London, England
J. Menzies Campbell, D.D.S. (U. of T.), L.D.S., F.R.S.E., Glasgow, Scotland
R. Harris, M.D.S., Sydney, Australia
*J. P. Walsh, M.B., B.S., B.D.Sc., (Melb.), L.D.S. (Vic.), University of Otago,
Dunedin, New Zealand.*
H. Goldin, L.D.S. R.C.S. (Eng.), D.D.S., (Michigan), Pretoria, South Africa

U.S.A. Correspondents

- John E. Gurley, D.D.S., F.A.C.D., San Francisco, California*
Lon W. Morrey, D.D.S., F.A.C.D., Chicago, Illinois
Jerome H. Trier, D.D.S., F.A.C.D., New York City

SECTION FRANCAISE

Comité de Rédaction

- Paul Geoffrion, B.A., D.D.S., A.I.D.O., L.C.D., Montréal, Québec*
Armand Fortier, D.D.S., Montréal, Québec

Rédacteur

Gérard de Montigny, B.A., D.D.S., L.C.D., M.S.D., 397 est, Bd St Joseph, Montréal

Committee on Publications

- R. P. LOWERY, D.D.S., (Chairman), Toronto, Ontario*
FRANK MARTIN, D.D.S., Toronto, Ontario. H. HALDERSON, D.D.S., Toronto, Ontario.
GUSTAVE RATTÉ, D.D.S., Québec, Qué.

Business Administration

- D. W. GULLETT, D.D.S., 211 Huron St., Toronto, Ont. - - - Business Manager*
H. R. ROLLS, Consolidated Press Ltd., Toronto, Ont. - - - Advertising Manager

Office of Publication

Consolidated Press, Limited, 73 Richmond Street West, Toronto 1, Ontario

Branch Offices:

New York, 101 Park Ave. Montreal, New Birks Bldg. Winnipeg, 305 Birks Bldg.

INDEX TO VOLUME 13—1947

Index to	Pages
January	1-84
February	55-104
March	105-152
April	153-204
May	205-256
June	257-310
July	311-362
August	363-414
September	415-464
October	465-516
November	517-567
December	569-636

FRONTISPICES

Colonel Elgin McKinnon Wansbrough, D.D.S., O.B.E., M.M., E.D.	2
Arthur E. Proctor, D.D.S.	56
Roy Gilmour Ellis, D.D.S., M.Sc. (Dent.), F.A.C.D.	106
Albert Surprenant, D.D.S.	154
Henry L. Freeland, D.D.S.	206
Robert B. Bell, B.Sc., D.D.S.	258
R. P. Lowery, D.D.S.	312
J. Kenneth Carver, D.D.S.	364
Gustave Ratté, B.A., L.C.D., D.D.S.	416
L. J. D. Fasken, D.D.S.	466
F. H. Shepherd, D.D.S.	518
A. J. Coughlan, D.D.S.	570

MANUSCRIPTS

Address of the President — V.D. Crowe	417
A Recall System of Proven Value — George C. Hare	319
A Year's Retrospect in Institutional Work — J. T. Cairns	322
A Cruise on the Mission Ship "Rendezvous" — R. S. Rose	325
A General Outline of Orthodontics — John Abra	420
A Talk on Dental Education — W.W. Woodbury	519
Converting the Dental Chair into an Operating Table—C. Clayton Bourne	589
Dental Caries and Related Subjects— B. Gottlieb	467
Dental Caries Among British Columbia and Saskatchewan School Children — F. W. Hanley and L. B. Pett	313
Dental Disease and Caries Incidence— H. H. Neumann	578
Diagnosis of Carious Lesions on the Proximal Sur- face of Teeth—John Haddin Barr	583
Endocrinology and Dentistry—M. R. Chipman	365
Food and Health in Seventeenth Century — S. Basterfield	18
Gold Foil — Gerald D. Stibbs	155
General Anaesthesia in Pedodontia — I. B. Hyams	373
Interception of Malocclusion, — Robert W. Marshall	110
New Aspects of Periodontal Research — Harold K. Box	3
On Wearing Full Dentures — Ralph R. Dalglish	272
Partial Specialization — Murray L. Dymont	532
Periodontal Packs — W. G. McIntosh	268
Practical Consideration in the Use of Analgesics— M. G. Whillans	571
President's Address, F.D.I., — A. E. Rowlett	168
Save That Pulp — Isadore Wolch	371
The Future of Dentistry — Henry L. Freeland	207
The Dentist and His Heart — R. Kenneth Thomson	107
The Time of Your Life — Ralph R. Dalglish	72
The Vapour Spray Method for Pain Control — John A. Sherman	11
The Role of Ethyle Chloride as an Obtundent — M. Goldenberg	217
The Clinical Management of Amalgam — E. Carl Miller	259
Where is Extraction an Expedient Procedure in Orthodontic Treatment? — George W. Grieve	57
Your Practice and Yourself — Maxwell H. Toker	66

EDITORIALS

Dentistry and Research	25
Health Week, February 2-8	28
The Saskatchewan Problem	79
Dental Hygienists	125
Compromising with Ideals	177
Are We Living in a Dream World?	179
Dental Education	225
Specialization	281
Aid to China	282
Starting on a Long Road	339
Our National Dental Convention	383
Blueprint for Canadian Dentistry	435
Dentistry Marches On	485
Practice Management	539
Time Changes	597

BOOK REVIEWS

Oral Diagnosis and Treatment	28
Manual for Dental Technicians	29
Oral Surgery	81
Psychobiologic Foundations in Dentistry	81
The Surgeon Dentist	128
Three Quarter Crowns	180
Dental Education Today	181
Acrylics and Other Dental Resins	228
The 1946 Year Book of Dentistry	230
Practical Pedodontia	230
Dental Practice and Management	230
Temporomandibular Arthrography	283
Practical Anaesthesia for Dental and Oral Surgery	341
Dental Caries	385
Operative Oral Surgery	437
Accepted Dental Remedies	542
Advanced Radiodontic Interpretation	542
Practical Full Denture Prosthesis	542
Oral Medicine	487
Theory and Practice of Crown and Bridge Prosthesis	487

SUBJECT INDEX

Analgesics	431, 571
Australia	396
Acrylics	338
Antibiotics	122
Auxiliary Personnel	595
Amalgam	259
Acidophilus Counts	277
China	191, 282
Cancer	137, 503, 611
Caries	137, 139, 175, 313, 336, 467, 578, 583
Children's Dentistry	23, 124, 338, 382
C.D.A. Statistics & Reports	183, 438
Collective Bargaining	342
Dental Pulp	122, 371, 379
Domestic Problem	538
Dental Practice	24, 66, 72, 339, 450
Degenerative Diseases	483
D. V. A. Fees	33, 83, 177
Dental Education	207, 225, 295, 381
Dental Health	332
Diagnosis of Carious Lesions	583
Ellis Appointed Dean	134
Ethyl Chloride	217
Endocrinology	365
Eskimos	500
Food	18
Future of Dentistry	77
Focal Infection	434
Friendship	123
Fibrin Foam	433
Fluorides	138, 192, 295, 348, 349
F. D. I.	169, 493
Full Dentures	272
Group Practice	334
Gold Foil	155
Great Britain	179, 190, 232
Geriatrics	293
General Anaesthesia	373
Hawaii	292
Heart	107, 382
Health	18, 452
Hygienists	38, 82, 125, 129, 292, 379
Health Insurance	78, 89, 135, 232, 234, 241, 611

Impression Procedures	336
Institutional Work	322
Income Tax	31
Impacted Molars	377
Lemon Juice	173, 276, 488
Malocclusion	110
Nutrition	480
National Dental Convention	383
New Zealand	91, 291, 332
Norway	294
Nitrous Oxide	594
Obesity	432
Obtundents	217
Orthodontics	57, 176, 378, 420
Oral Surgery	349, 399
Penicillin	172, 243, 279, 333, 347, 482
Price, Weston A.	502
Presentation Dean Mason	389
Prepayment Plan	38
Periodontia	3, 268, 380
Pain	11
Poland	137
Practice Management	593
Recall System	319
Research	25
Rheumatism	296
Relationship, Dentist and Doctor	337
Science and the Public	591
Sedatives	481
Sweden	138
Saskatchewan	77, 83, 129
Streptomycin	242, 333, 484
Sugar	91
Specialists	241, 281
Technicians	136, 396, 489, 491, 591
Tooth Brushing	612
United Nations	39
Vitamin K	123, 280
World Health Organization	30, 398, 612
White Paper	179
War Memorial Scholarship	489

LIST OF CONTRIBUTORS

Abra, John	420
Basterfield, S.	583
Barr, John Haddin	3
Box, Harold K.	589
Bourne, C. Clayton	417
Crowe, V. D.	322
Cairns, J. T.	365
Chapman, M. R.	72, 272
Dalglish, Ralph R.	532
Dymond, Murray L.	207
Freeland, Henry L.	467, 524
Gottlieb, B.	57
Grieve, George W.	217
Goldenberg, H.	313
Hanley, F. W.	319
Hare, George C.	373
Hyams, I. B.	110
Marshall, Robert W.	

Müller, E. Carl	259
McIntosh, W. G.	268
Neumann H. H.	578
Pett, L. B.	313
Rowlett, A. E.	168
Rose, R. S.	325
Sherman, John A.	11
Stibbs, Gerald D.	155
Toker, Maxwell H.	66
Thomson, R. Kenneth	107
Woodbury, W. W.	519
Whillans M. G.	571
Wolch, Isadore	371

IN MEMORIAM

Ault, James Wesley	244
Austin, Hugh S.	350
Allen, W. S.	350
Bennett, Sir Norman	554
Burgess, Leroy H.	350
Bennett, Frank Ernest	244
Bald, George William	192
Bertrand, Ozro Herman	42
Bradley, Frederic H.	554
Coleman, Frederick L.	350
Coates, John Warren	42
Ezard, A. Russell	504
Follick, Egerton Ryerson	192
Gemeroy, G. Alex	140
Galloway, William Henry	244
Giffen, J. Frank	603
Graham, Wm. Henry	504
Hellman, Milo	402
Henry, Franklin L.	614
Honsinger, E. Wilbur	296
Hance, Irving J.	614
Irwin, Vern D.	350
Jeffs, Walter T.	92
Junkin, Wilfrid R.	504
Kinsman, Harry Miles	350
Lumsden, Colin A.	350
Loukes, H.	350
Leatherdale, Wm. Boyd	402
McComb, Calvin S.	42
McGrory, Frances S.	42
Moyer, Wilfred Murray	348
McClean, Herbert Arnold	58
Overholt, Joseph E.	192
Price, O. B.	140
Richardson, Samuel M.	402
Rowland, Cecil	614
Sproule, B.	42
Smith, A. Grigor	614
Schmeltz, Elmer F.	244
Sprague, William C.	296
Sutton, Charles	402
Stiwell, Luther H.	554
Thompson, Fred Lionel	504
Weagant, Charles H.	614
Willard, Walter Thomas	42
Young, W. S.	140

INDEX AU VOLUME 13—1947

	Pages
Janvier	43-54
Février	93-104
Mars	141-152
Avril	193-204
Mai	245-256
Juin	297-309
Juillet	351-362
Août	403-414
Septembre	453-464
Octobre	505-516
Novembre	517-567
Décembre	569-636

PHOTOGRAPHIES

Docteur Sanislav Gaudreau	103
Cours de perfectionnement à l'Université de Montréal	104, 301, 514
Plaque commémorative du docteur Théo. Côté	153
Démonstration clinique à l'Université de Montréal	203

Docteur Charles-A. Durand	253
Remise d'un doctorat honorifique au docteur J.A.N. Thibert	363
Réunion du Bureau des Gouverneurs de l'A.D.C. à Digby	513

ARTICLES ORIGINAUX

"Contribution à l'amélioration du matériel chirurgical employé dans le traitement de la pyorrhée alvéolaire" (suite), par Jules Thébaud, D.D.S., F.I.C.D., Montréal	43
"Contribution à l'amélioration du matériel chirurgical employé dans le traitement de la pyorrhée alvéolaire" (fin), par Jules Thébaud, D.D.S., F.I.C.D., Montréal	93
"La reproduction des dents antérieures en acrylique pour dentier immédiat", par Aimé Couture, D.D.S., Ottawa	141
"Réactions pulpaires aux ciments-silicates", par H. A. Zander, M.S., D.D.S., Boston	193
"Nombre de dentistes au Canada", par Don W. Gullett, D.D.S., Toronto	199

"Réactions pulpaire aux ciments-silicates" (fin), par H. A. Zander, M.S., D.D.S., Boston	245
"Les progrès de l'endodontie dans la province de Québec", par Ernest Charron, D.D.S., Montréal	250
"Les théories de l'anesthésie", par Marc Crevier, L.Sc. Montréal	297
"Préparation psychique et médicamenteuse du patient nerveux", par Jean-Paul Lachapelle, B.A., D.D.S., L.C.D., Montréal	351
"Restaurations d'amalgame dans l'armée: évaluation et analyse", par Leo H. Roper, D.D.S. New York	403
"Complications post-opératoires", par A. E. Voisard, D.D.S., L.C.D., Outremont	453
"Pourquoi, comment et quand les gingivites de nature hypertrophiante peuvent-elles être soignées avec succès", par Jules Thébaud, Montréal	555
"Des Moyens, Qui Sont à Notre Disposition, Pour Prévenir la Carie Dentaire", par Chs—A. Durand, Montréal	615
"Allocation de Présentation d'un Diplôme Honorifique au Docteur J. A. N. Thibert"	625

PAGES EDITORIALES

"La Société Dentaire des Trois-Rivières", par Roméo Beaudry	53
"Cotisation à l'A.D.C.", par Gérard de Montigny	101
"Don de la Fondation Kellogg à l'Université", par Gérard de Montigny	102
"Contrôle de la profession par le gouvernement de Saskatchewan", par Gérard de Montigny	149
"Dentisterie Industrielle", par Gérard de Montigny	203
"Un évènement dans notre vie professionnelle", par Gérard de Montigny	253
"Le contrôle de notre domaine", par Gérard de Montigny	308
"Précieuses réflexions", par Viger Plamondon	357
"Rapport du rédacteur de la section française au Bureau des Gouverneurs de l'Association Dentaire Canadienne", par Gérard de Montigny	411
"Progrès au sein de notre Association.—Réunion de l'Association Dentaire Canadienne, à Digby", par Gérard de Montigny	457
"Nomenclature Dentaire", par Gérard de Montigny	515
"Souhaits pour l'année nouvelle", par Gérard de Montigny	623

LISTE D'AUTEURS

Beaudry, Roméo—"La Société Dentaire des Trois-Rivières"	53
Charron, Ernest—"Les progrès de l'endodontie dans la province de Québec"	250
Couture, Aimé—"La reproduction des dents antérieures en Acrylique pour dentier immédiat"	141
Crevier, Marc—"Les théories de l'anesthésie"	297
de Montigny, Gérard—"Cotisation à l'A.D.C.", "Don de la Fondation Kellogg à l'Université"	101
de Montigny, Gérard—"Contrôle de la profession par le gouvernement de Saskatchewan"	102
de Montigny, Gérard—"Dentisterie industrielle"	203
de Montigny, Gérard—"Un évènement dans notre vie professionnelle"	253
de Montigny, Gérard—"Le contrôle de notre domaine"	308
de Montigny, Gérard—"Rapport du rédacteur de la section française au Bureau des Gouverneurs de l'Association Dentaire Canadienne"	410
de Montigny, Gérard—"Progrès au sein de notre Association.—Réunion de l'Association Dentaire Canadienne, à Digby"	457
de Montigny, Gérard—"Nomenclature Dentaire"	515
de Montigny, Gérard—"Souhaits pour l'année nouvelle"	623
Durand, Charles-A.—"Des moyens, qui sont à notre disposition, pour prévenir la carie dentaire"	615
Fortier, Armand—"Nouveaux règlements du Collège des Chirurgiens-Dentistes de la Province de Québec"	505
Gullett, Don W.—"Nombre de dentistes au Canada"	199
Lachapelle, Jean-Paul—"Préparation psychique et	

médicamenteuse du patient nerveux"	351
Plamondon, Viger—"Précieuses réflexions"	357
Poitras, Paul-Émile—"In Memoriam—Docteur Stanislas Gaudreau"	103
Roper, Leo H.—"Restauration d'amalgame dans l'armée: évaluation et analyse."	403
Rowlett A. E.—"Allocutions du président de la Fédération Dentaire Internationale"	303
Thébaud, Jules—"Contribution à l'amélioration du matériel chirurgical employé dans le traitement de la pyorrhée alvéolaire"	43, 93
Thébaud, Jules—"Pourquoi, comment et quand les gingivites de nature hypertrophiante peuvent-elles être traitées avec succès"	555
Voisard, A. E.—"Complications post-opératoires"	453
Zander, A. E.—"Réactions pulpaire aux ciments-silicates"	193, 245

INDEX DES SUJETS TRAITES

Anesthésie	297
Association Dentaire Canadienne	52, 101, 145, 149, 199, 249, 252, 254, 302, 411, 413, 414, 456, 458, 511, 513
Aviateurs	255
Carie	615
Collège des Chirurgiens-Dentistes	567
Complications post-opératoires	453
Congrès	356, 414, 624
Corps Dentaire Canadien	52, 146, 456
Cours de perfectionnement à l'Université	630
Dentisterie opératoire	193, 245, 403
Dentisterie industrielle	203
Doctorats	198, 362
Endodontie	250
Fédération Dentaire Internationale	303
Fluor	362
Géographie et dents	100
Hémorragies	148
Littérature scientifique	204, 253
Matière médicale	351
Médicaments	54
Mémorial du docteur Théo. Coté	52, 145, 152
Nécrologie	103, 456
Nomenclature	515
Prothèse	141
Paradentose	43, 93
Publications dentaires	199
Sociétés dentaires	53, 146, 199, 254, 302, 356, 301, 302, 356, 361
Université de Montréal	52, 102, 104, 199, 202,

DIVERS

Usage local du Sulfathiazol	54
Les dents et la géographie	100
Pencillo-sensibilité de la flore buccale	102
Quatorze jubilés d'argent et deux élections de gouverneurs célébrés par nos dentistes, à Drummondville	146
Nouveau procédé hémostatique	148
La haute mission des médecins-dentistes: La voix du pape	150
La biopsie des tumeurs est-elle dangeueuse?	201
Le dentiste et la littérature scientifique	204
Statistiques sur le nombre des dentistes du Canada	249
Migration des dentistes canadiens durant 1946	252
Nombre de dentistes à l'emploi des services de santé	252
Nombre des spécialistes dans les diverses provinces	252
Traitements dentaires des aviateurs	255
Allocutions du président de la Fédération Dentaire Internationale	303
Le jus de citron et les dents	307
Moins de sucre, mais de meilleures dents	356
La question du fluor	362
Sommes souscrites au Mémorial de Guerre de l'A.D.C.	413
Rapport de la réunion annuelle de l'A.D.C., à Digby, en juin 1947	458, 508
"Nouveaux règlements du Collège des Chirurgiens—Dentistes de la Province de Québec,"	505

NECROLOGIES

Gendreau, Stanislas—par Paul-Émile Poitras	103
L'Archevêque, Aldolphe	456

New Year's Greeting

from

OUR PRESIDENT



AS WE STAND on the Threshold of a New Year and consider our present position, we find many things for which we should be very thankful and grateful.

Most of us are as busy as we can be. There seems to be a better appreciation of our services from our patients. There is a finer *esprit de corps* among our members; and our National Association is receiving more support from the Profession than ever before.

Let us strive to make ourselves worthy of all these blessings.

On behalf of the Officers and Board of Governors of your National Body, I take this opportunity to wish you all a Happy New Year.

VICTOR D. CROWE.

Truro, N.S.



COLONEL ELGIN MCKINNON WANSBROUGH,
D.D.S., O.B.E., M.M., E.D.
Ottawa, Ontario.

Director General Dental Services.

1916-1919 Served in Infantry & Machine Gun Bns.

Graduate of University of Toronto 1923.

Practised in Shelburne, Ontario, prior to appointment
in C.D.C., November 15, 1939.

Command Dental Officer No. 1 Training Command,
R.C.A.F., Toronto.

A.D.D.S. O/S H.Q., London, England—

Aug. 42—Aug. 45.

A.D.D.S. (Air)—N.D.H.Q., Ottawa.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, JANUARY, 1947

NO. 1

NEW ASPECTS OF PERIODONTAL RESEARCH*

by HAROLD K. BOX, D.D.S., Ph.D., Research Professor of Periodontology,
Faculty of Dentistry, University of Toronto.

THE great pathologist Adam placed the causative agents of disease in two categories, namely, direct and predisposing; and, according to him, predispositions are "the result of the presence of assisting causes or of the absence of preventing properties".

Years ago in medicine, when few direct causes of disease were known, many predisposing causes were recognized. With the advent of bacteriologic research, many direct causes were discovered, as evidenced by the number of specific microorganisms brought to light. Today, concerning the aetiology of periodontal disease, predisposing causes, both general and local, have received the main attention. It must be admitted that the various attempts to show that some specific organism could be classed as a direct causative agent have not fared very well.

Among the general metabolic conditions cited in the literature are various endocrine disturbances, vitamin deficiencies, and autointoxication. Among the local predisposing factors, traumatic occlusion has been given a prominent place. Its localizing capacity in gingival and periodontal disease is more-or-less generally recognized today.

The precise relationship of general and local metabolic states to the

establishment of infection is not thoroughly understood, and in our want of knowledge we take shelter behind the well-known terms "lowered resistance" and "low vitality" of the tissues.

The importance of another local factor, namely, the presence of "incubation zones," should be stressed at this time. In these regions, ideal conditions, from a cultural standpoint, are provided for the development and increase in virulence of anaerobes (Box, 1930). Protection against rough usage is also furnished, which is especially needed for certain organisms to be mentioned later. In passing, the relation of the eruption of teeth should be emphasized, especially difficult eruption in the mouths of children where the gingival tissues are swollen with the establishment of "incubation zones". Inflammation of the gingival tissues of children, associated with erupting teeth, should be eliminated without delay as a preventive measure against adult periodontal disease. This conception was advanced by Becks (1929).

THE PROBLEM OF SPECIFIC INFECTION

The prevailing teaching today is that "pyorrhea" is not a specific infection. Here the term is used to denote pus-flow from the pocket; and the condition is regarded as dependent

* Presented at the National Convention of Canadian Dentists, Toronto, May 29, 1946.

entirely upon the existence of the pocket. This circumscribed viewpoint is probably correct, and serves to show how much importance has been attributed to the presence of visible suppurations. For many years, this has tended to dominate the nomenclature; the conception of the basic nature of the infectious processes concerned; and the therapy.

It must be pointed out, however, that this "pyorrhea" point of view is not adequate to explain the fundamental nature of the processes concerned in relation to certain gingival and periodontal pockets. Clinical evidence plainly teaches that many pockets of considerable depth are free from visible suppuration. This is the "dry pyorrhea" of the older practitioners, and to speak of it as "apurulent pyorrhea" obviously does not clarify matters. Both of these terms involve a contradiction. We are in agreement with Bunting and Hill (1940) that in the great majority of cases the type of infection is apurulent. It should be pointed out, in this relation, that such purulent pockets are commonly found on the enamel surface of erupting teeth of children. When suppuration does occur in this type of pocket, wherever found, we as a rule regard this event as a secondary phase of a condition that had its beginning in a primary necrotic process.

Over the years, various organisms have been imputed as direct causative agents, or playing the main role, in the production of periodontal disease. Sixty-five years ago, Arkövy mentioned a "certain fungoid formation" which he found constantly occurring in close relation to "wasting of the alveoli and the gingival margin as well as the subsequent loosening of the teeth." Black (1886) regarded his "phagedenic pericementitis" as caused by a specific form of microorganism, and suggested the probability of a

fungus causing and maintaining this condition. Later, certain spirochetes with the fusiform bacillus were thought responsible (Noguchi, 1912); then *Entamoeba buccalis* (Barrett, 1914; Bass and Johns, 1914); and *Streptococci* (Hartzell, 1919). Smith (1932) regarded "pyorrhea," using the common term, as a specific infection with a symbiotic group of anaerobic organisms common to necrotic gingivitis, viz., spirochetes, fusiform bacilli, vibrios and cocci. According to this investigator, "pyorrhea" develops on a background of general and local disturbances, and frequently both predisposing factors are present.

FUNGUS-LIKE ORGANISMS

In 1944, and again in 1945, we reported the finding, in human sections, of complex forms of organisms in the cellular debris at the base and along the wall of the pocket. They resembled certain organisms described by Beust, the Deans, and other investigators.

(a) *Leptothrix falciformis* (Beust)

Beust (1908) first described certain mouth organisms to which he gave the name *Leptothrix falciformis*. They appear to comprise a stem or stalk from which radiate many falcate or scythe-shaped spore bodies or conidia. According to Beust (1937), these conidia or asexual spores are provided with peritrichate flagella, that is to say, long, delicate filaments surround the entire organism*. He regarded these falciform spore bodies as identical with fusiform bacilli found in smears of "materia alba." He classified the *Leptothrix falciformis* with the algae-like fungi, and regarded it as pathogenic.

Aisenberg (1938) described the stem of this organism as segmented, solid and unbranched. He concluded that the falcate spores are not attached to this stem, but arise in a jelly-like

* The studies of Smith (1932) and Hine (1935) failed to demonstrate the presence of flagella on fusiform bacilli. Boe (1943) apparently was able to show that flagella are present. Recently, with the electron microscope, the writer has shown long flagella-like filaments which seem to arise from fusiform organisms obtained from periodontal pockets.

matrix which forms a sheath around it. This matrix appears to be created by certain spherical bodies which appear early on the stem. Aisenberg's findings were made from smears taken from necrotic gingivitis. (Fig. 1.)

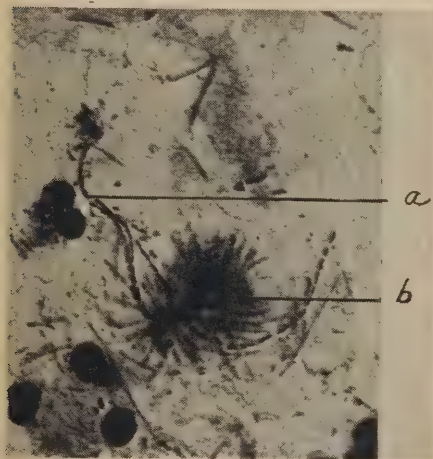


FIG. 1

Leptothrix falciformis organism in smear from deep periodontal pocket. Note the long segmented filament and fructifying head with radiating falcate spore bodies (Aisenberg), or bacillary forms.

a. filament; b. head.

(b) Branching Plant-like Organisms (Dean and Dean)

Dean and Dean (1931) observed in smears from necrotic gingivitis a "dichotomous branching type of growth." Each branch comprises a central shaft made up of mycelial filaments containing granules. From this shaft, bacillary forms, including fusiforms, radiate. Cocklebur formations containing bacillary forms are invariably found near the central shaft and, at times, at the end of it. From their observations, including cultural studies, these investigators concluded that the fuso-spirochetal organisms found in the lesions of necrotic gingivitis "represent phases in the life-cycle of a higher bacterium or microscopic plant." Dean and Dean suggested that more than one genus might be involved. (Fig. 2 and Fig. 3.)



FIG. 2

Large organism, with thick stalk and radiating bacillary forms, found in smear from a deep periodontal pocket. Note similarity of this organism to the one near the base of the pocket shown in histologic section, Fig. 4.

a. stalk; b. radiating bacillary forms.



FIG. 3

Large branching organism with numerous radiating bacillary forms, found in smear from a deep periodontal pocket.

a. stalk; b. bacillary forms; c. filament.

RECENT MICROSCOPIC OBSERVATIONS

From the available evidence from various sources, we have come to regard these fungus-like formations, and associated free organisms, as a

direct causative factor in a form of periodontal disease we have termed necrotic periodontitis (Box, 1945).

The following observations concerning the pocket, the epithelial attachment, and the connective-tissue attachment seem significant:—

1. The close proximity of the parent organism to:

- (a) Regions of necrosis in pocket epithelium (Box, 1944).

- (b) Breaks in the epithelial continuity of the pocket lining (Box, 1944). The presence of these breaks was reported by the writer as early as 1921 and again in 1928.

- (c) Disorganized cementum cuticle in the pocket. The cuticle is a keratinous layer and is resistant to the action of acids and alkalis. The cuticle destruction in the pocket suggests the action of keratin-hydrolysing enzymes present in this region. It may be of interest to point out that nails and horn, when added to media, are utilized by certain fungi (Belding and Marston, 1938).

2. These organisms have been observed at the base of the pocket adjacent to necrotic epithelial attachment, and also deep in the necrotic epithelial attachment itself. Through this loss of attachment, the pocket is deepened. The deepening of the pocket proper is a phase which belongs to the epithelial attachment.

These organisms have also been noted near the pocket base where the cementum cuticle under the epithelial attachment shows marked disorganization for quite a distance apically. (Fig. 4 and Fig. 5.)

3. Certain changes have been noted under and near the base of the epithelial attachment beneath a deep pocket where the attachment is necrotic and where these complex parent organisms are present deep

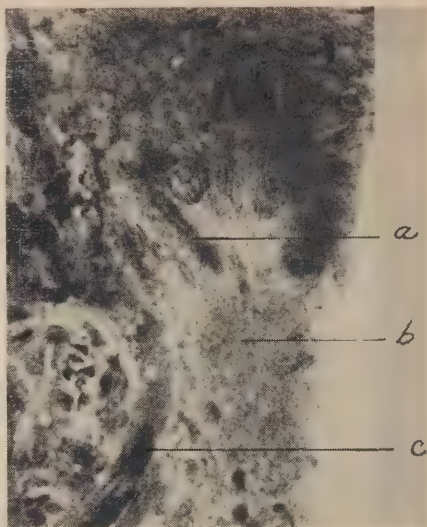


FIG. 4

Large fungus-like organism near the base of a pocket in histologic section. Note the stalk and radiating bacillary forms. The underlying homogeneous material teems with free bacillary forms.

- a. fungus-like organism; b. homogeneous material at base of pocket; c. epithelial cell.

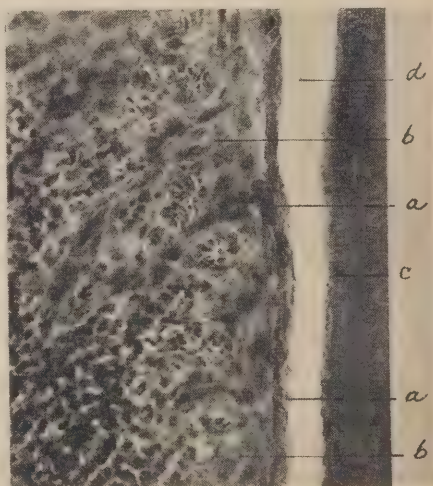


FIG. 5

Cementum cuticle close to the base of pocket shown in Fig. 4, undergoing apparent disorganization.

- a. disorganized cuticle; b. epithelium; c. cementum; d. shrinkage space.

down in the necrotic material. For some distance crownwards from its present base, the epithelial attachment lies outwards from the tooth, forming a wedge-shaped space. This space, which may extend a considerable distance crownwards, is filled with a hyaline-like material showing marked vacuolation.

In some sections, the adjacent connective-tissue fibres and cementoblasts have disappeared, with apparent transformation of the tissue into a vacuolated hyaline material. This change can be followed for some distance apically and away from the tooth to an intact fibre bundle. (Fig. 6.)



FIG. 6

Apparent transformation of connective tissue fibres near base of epithelial attachment into a vacuolated hyaline material. Note absence of cementoblasts on tooth surface in this region.

- a. vacuolated material; b. connective tissue fibres; c. base of epithelial attachment; d. cementum surface devoid of cementoblasts.

A good example of this hyaline-like change in a fibre bundle close to the base of the epithelial attachment is shown in the next illustration. Through swelling, the fibrils have

become homogenous. This has been followed by mild vacuolation. It will be noted that where the fibre bundle has been involved, few fibroblasts are present, and the area of attachment to the cementum is devoid of cementoblasts. The disorganization of the fibres seems to stand in close association with a small capillary, lacking its endothelial cells, and lying in the disintegrated fibres. (Fig. 7.)



FIG. 7

Disorganization of large fibre bundle near the base of epithelial attachment. Note the fairly large region involved, and the mild vacuolation. Here the fibroblasts are few, and the area of attachment on the cementum shows no cementoblasts. Note also the small vessel minus endothelium lying in the disorganized fibres.

- a. region of hyaline-like change and vacuolation;
- b. cementum surface devoid of cementoblasts;
- c. capillary lying in disintegrated fibres;
- d. base of epithelial attachment;
- e. normal fibre bundle.

In some instances, these changes are to be observed in nearby fibre bundles and affecting them in regions considerably distant from the cementum surface to which they are attached.

Important changes** are to be observed in the deeper soft tissues

and involving, to a marked degree, the periodontal membrane for some distance apically. These changes are characterized by loss of endothelium of certain blood vessels; haemorrhage and oedema; and the presence of a coagulum of unknown nature. The red blood cells are mainly intact and the absence of infiltration of leucocytes is a striking feature. (Fig. 8 and Fig. 9.)

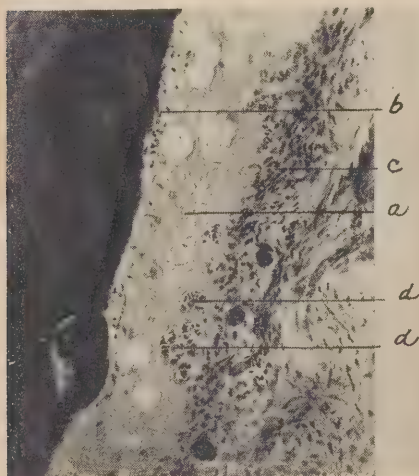


FIG. 8

Extensive changes in periodontal membrane adjacent to cementum surface. Note the vacuolated coagulum lying between attached layer of fibrous tissue on the tooth and the periodontal tissues. Note also the blood vessels devoid of endothelium, with the red cells intact.

- a. vacuolated coagulum; b. fibrous tissue remnants on cementum surface; c. fibrous tissue of periodontal membrane; d. lumen of blood vessel almost filled with red blood cells.

According to our interpretation of the microscopic evidence, the agent or agents responsible for the changes appear to originate in the pocket, passing through the intercellular spaces of that part of the epithelial attachment lying close to the tooth. The findings suggest that extra-

cellular, proteolytic enzymes are involved***. The cuticle is attacked, and, with penetration to the collagen fibres at the base of the epithelial attachment, these fibres are disorganized.

It seems plain that the destructive changes, localized and widespread, observed in the deeper fibre bundles, and the extensive lesions in the periodontal membrane are due to the action of a fairly powerful necrotizing agent. According to our viewpoint it is probable that this agent is carried by the lymphatic vessels leading from the base of the pocket and liberated into the tissues.

Jennison (1945) showed that some species of bacteria are able to attack gelatin but are unable to digest collagen. His experiments showed that extracellular, collagen-splitting enzymes are produced by a number of bacteria. It is also known that active, proteolytic filtrates are produced by soil fungi (Waksman, 1918). Henrici (1930) has mentioned that some fungi produce an enzyme like trypsin. In their investigations of acute haemorrhagic pancreatitis, Rich and Duff (1936) carried out certain experiments on dogs where subcutaneous injections of trypsin were made. They showed that trypsin has a powerful necrotizing action on the walls of blood vessels. It is interesting, in the light of our findings, to note that red blood cells are resistant to trypsin (Wells, 1920). According to Smith (1932), powerful necrotizing enzymes are produced by the fuso-spirochaetal group of organisms. These enzymes are able to destroy the elastic tissue and the muscle layer of the bronchi.

CONCLUSIONS

1. Too much emphasis has been given to the presence of visible suppuration in the pocket. This has tended

** These changes will be described in detail and presented in bulletin form at a later date.

*** It has been shown by Burge and Burge (1914) that nascent oxygen destroys enzymes. From a periodontal standpoint, it is of interest to note that nascent or atomic oxygen therapy has been widely recommended, e.g. the Superoxol Treatment of Orban.

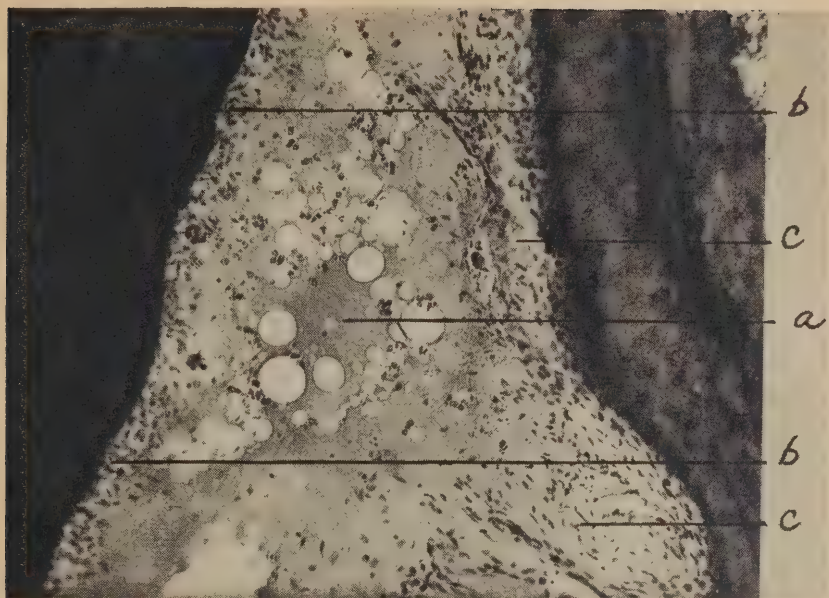


FIG. 9

Great alteration of periodontal membrane in which a widespread, homogeneous, vacuolated coagulum fuses with the fibrous tissue on the tooth and bone.

- a. homogeneous coagulum; b. fibrous tissue remnants on cementum surface; c. fibrous tissue attached to bone.

to dominate our mode of thinking in periodontology, and more basic causes and processes have thus been obscured and neglected.

2. The findings would seem to warrant the tentative assumption that certain fungus-like organisms, and associated free bacillary forms, have a direct causative relationship with at least one form of periodontal disease.
3. Filterable necrotizing enzymes produced in the pocket appear to play a dominant role in the aetiology of certain fundamental periodontal lesions.

With investigations now under way in the Banting and Best Department of Medical Research, it is hoped that obscure phases of the problem will be clarified.

BIBLIOGRAPHY

- Alsenberg, 1933. Morphologic Studies of Microorganisms of Fusiform Type, *Dent. Cosmos*, 75: 546
- Arkövy, 1881. A Discussion "On the Premature Loss of Teeth by Destruction of their Alveoli," *Trans. Internat. Med. Congress, London*, 3: 575
- Barrett, 1914. The Protozoa of the Mouth in Relation to Pyorrhea Alveolaris, *Dent. Cosmos*, 56: 948
- Bass and Johns, 1914. The Specific Cause and the Prompt Specific Cure of Pyorrhea Alveolaris or Riggs' Disease, *Dent. Summary*, 34: 994
- Becks, 1929. Normal and Pathologic Pocket Formation, *Jour. Am. Dent. Assn.*, 16: 2167
- Belding and Marston, 1938. A Textbook of Medical Bacteriology, D. Appleton—Century Company
- Beust, 1908. A Contribution to the Morphology of the Microorganisms of the Mouth, *Dent. Cosmos*, 50: 594
- Idem, 1937. Morphology of the Fusiform Bacillus, *Jour. Dent. Res.*, 16: 379
- Black, 1886. Diseases of the Peridental Membrane, *Am. Syst. of Dent.*, Vol. 1
- Boe, 1943. On the Motility of Fusobacterium, *Acta path. et microbiol. Scandnav.*, 20: 573, (Current literature abstract, *J.A.D.A.*, May, 1946)
- Box, 1930. Necrotic Gingivitis, *Bull. No. 14, Can. Dent. Res. Found.*
- Idem, 1944. Can Specific Infective Factors Operate to Deepen a Pocket? *Jour. Can. Dent. Assn.*, 10: 427
- Idem, 1945. Necrotic Periodontitis, *Oral Health*, 35: 321
- Bunting and Hill, 1940. A Text-Book of Oral Pathology, Lea & Febiger
- Burge and Burge, 1914. The Role of Nascent Oxygen in Regulating the Activities of Enzymes in Animals and Plants, *Amer. Jour. Physiol.*, 34: 140
- Dean and Dean, 1931. Cultural Observations on Fusospirochetal Infections, *Jour. Dent. Res.*, 11: 759
- Hartzell, 1919. A Discussion of the Essential Factors in the Treatment of Pyorrhea, *Dent. Items of Interest*, 41: 45
- Henrici, 1930. Moulds, Yeasts and Actinomycetes, John Wiley & Sons, Inc.
- Hine, 1935. Motility of Fusiform Bacteria, *Jour. Dent. Res.*, 15: 168
- Jennison, 1945. Bacterial Collagenase, *Jour. Bact.*, 50: 369
- Noguchi, 1912. Treponema Mucosum, *Jour. Exp. Med.*, 16: 103

Rich and Duff, 1936. Experimental and Pathological Studies on the Pathogenesis of Acute Haemorrhagic Pancreatitis. Bull. Johns Hopkins Hospital, Vol. LVIII, No. 3, pp. 137-211

Smith, 1932. Oral Spirochetes and Related Organ-

isms in Fuso-Spirochetal Disease, The Williams and Wilkins Company

Waksman, 1918. Studies on the Proteolytic Enzymes of Soil Fungi and Actinomycetes, Jour. Bact., 3: 509

Wells, 1920. Chemical Pathology, W. B. Saunders Company

ANNOUNCEMENTS

1947 National Convention

Arrangements are steadily progressing for the National Convention in Digby, June 24-27. The program has been drawn up and steps are being taken regarding the selection of clinicians. Dr. H. S. Crosby, Birks Bldg., Halifax, Chairman of the Accommodations Committee, has already received over two hundred requests for reservations. These are all being acknowledged and anyone not receiving a reply should assume that the request has not been received and make further inquiries.

Every person coming to the Convention by rail should obtain a convention certificate when buying his or her railway ticket. These will be endorsed at Digby with the convention stamp. If enough people use rail facilities in attending the Convention, a refund may be obtained from the railway based on the reduced fares applying to group convention travel.

The Imperial Touring Service, Imperial Oil Bldg., Toronto 2, is prepared to furnish up-to-date reports on road conditions, maps and route information for those travelling by car.

The Nova Scotia Dept. of Publicity, at a later date, will forward tourist literature to all who have made reservations. Because of the demand for accommodation you are urged to apply for reservations not later than Feb. 10. Convention dates June 24, 25, 26, 27, 1947.

G. M. LOGAN,
Chairman, Publicity Committee.

Western Canada Dental Society

This Society announces a joint convention with the British Columbia Dental Association to be held at Banff, Alberta, on June 13-14-15, 1947.

The problem of accommodation at the Banff Springs Hotel is at all times extremely difficult, so every member who wishes to ensure space is advised and urged to make reservations before the end of December, 1946.

Reservations are now being accepted by Dr. F. M. Murray, 802 Southam Building, Calgary, Alberta, Chairman of Accommodation Committee.

Western Canada Dental Nurses' and Assistants' Association

This Association is holding its Annual Convention in conjunction with the Convention of the Western Canada Dental Society which is being held at the Banff Springs Hotel, Banff, Alberta, June 13-15, 1947.

THE VAPOUR SPRAY METHOD FOR THE CONTROL OF PAIN*

by JOHN A. SHERMAN, D.D.S., Toronto, Ontario.

IN THE past three years there has been an increasing tendency on the part of the dental profession to minimize the pain of operative procedure by the employment of a jet of air, or water, in an effort to dissipate the frictional heat created by the bur. It would appear that this evolution is not temporary but is a permanent phase in the development of our profession, and a brief review of the literature is indicated.

Henschel has established that the temperature tolerance of vital dentine is such that there is no pain sensation between 85 degrees and 130 degrees Fahrenheit, but that above or below these temperatures, discomfort is created. He found that most of the pain originates in the dentine and that during the drilling of teeth, the temperature may rise above 130 degrees F. Henschel computed the heat generated by means of calorimetry and found that friction developed by a steel bur raised the temperature of the dentine to 233 degrees and even to as high as 360 degrees F., the heat generated depending on the size of the bur, its speed, and the pressure with which it was used. He recommended a flow of water at the rate of 8 to 16 cc. per minute.

Henschel's calculations probably give values that are too low with respect to the temperature generated at the frictional surface. For example, in the usual electro-surgical unit employing a diathermy knife, sufficient heat is generated at the knife edge to cut tissues and yet the total heat generated is too small to inflict thermal death beyond an area of one tenth of a mm. from the actual incision. It would be desirable to have a direct measurement of the heat created, a procedure which in

complexity should be only a fraction of what for instance the physiologist has overcome in measuring the heat production of muscle by means of the thermopile. By the aid of the thermocouple in the bur, it should be feasible to measure directly the heat produced. Be that as it may, there can be no doubt that excessive heat is generated, the resulting pain to the patient compelling the operator to work intermittently or else with less pressure. In the past, of course, careful work implied precautions against the creation of excessive heat, since it is well known that otherwise the operation is painful and dessication of dentine and pulp haemorrhage with virtual death of the pulp may result. Every dentist is acquainted with the existence of gangrenous pulp following a hastily prepared jacket crown. Formerly such pain was minimized by the use of dentine obtundents, or local anaesthetics, or even gas analgesia. Although anaesthesia will give relief to the patient, its use can still be dangerous, since trauma to the pulp due to the high temperature of operating often results in permanent injury, because the determining effect of pain is absent.

For thirty years it has been known to orthopaedic surgeons, that the excising of a strip of bone from the tibia for use as a bone graft, required that the circular saw employed be kept continually moist with physiological saline solution, since the frictional heat developed might kill bone cells and impair the vitality of the bone graft. It has taken the dental profession one generation to apply this principle to the preparation of cavities. Owing to its high latent heat of vaporization (537 calories per gm.), water is the logical method of cooling

*Presented before the Ontario Dental Association as a table clinic, May 29, 1945.

a heated surface. In addition it has a high specific heat. As pointed out by Henschel it is easy to satisfy oneself that a fine stream of water directed at the point of drilling will transform what was ordinarily a painful procedure, into one that is indifferent or even painless. Henschel was impressed with the advantages of thermal control by means of a stream of water directed at the tooth during operative procedure. Besides the customary water syringe, there are today various instruments available, incorporating this principle. In these, a stream of water commences as soon as the bur starts to revolve, a metal tube being connected to the handpiece or contra-angle directing the stream to the point of drilling. There are, of course, infinite variations possible, and depending on the ingenuity of the worker, an instrument can be designed fully as complicated as radar. The ultimate aim, however, should be to provide the simplest method of accomplishing the task.

I have attempted, as suggested by Henschel, to use a fine jet of water directed into the cavity co-incident with drilling, in an effort to relieve thermal pain. It has, of course, given a high degree of relief; its disadvantages in my hands have been the relatively large amount of liquid in the mouth during the operation, a quantity much greater than that described by Henschel as being necessary for the relief of pain. Moreover, the cavity became flooded, obscuring vision, and I found that the flow of water had to be controlled by a rather complicated apparatus requiring careful attention to maintain it in a state of service.

Killilea has described Carpenter's method of using air to minimize frictional heat, by means of an air-conditioned handpiece which he claims cuts the operating time in half, and largely eliminates pain of drilling. He claims that the tooth is kept dry and excellent vision of the operative field is obtained. Cotton rolls are not neces-

sary he finds in the preparation of cavities and the bur clogs less and cuts faster. Killilea believes that "reversion to operating without air is like a return to horse and buggy days."

The Page instrument is based upon thermal control by air or water or both. Its advocates represent it as a simple piece of equipment that can be attached to the handpiece or contra-angle. The water is controlled by a slide on the contra-angle or handpiece, and the air is controlled by a valve on the foot control. Air and water can be used simultaneously or separately as desired. It is claimed that it reduces pain, saves as much as 75% drilling time, and eliminates the need for a saliva ejector.

AIRBRASIVE

Black, in what may turn out to be a classical paper in the history of our profession, describes a technique for nonmechanical preparation of cavities. The technique, which uses a principle new in our profession, has received nation-wide attention, having been described in "Time" magazine. He refers to his method as "airbrasive". In principle, it consists of wearing away a surface with abrasive propelled by fast moving air. A one-fiftieth inch nozzle directs a sharply focussed blast of fine aluminum oxide particles at ninety pounds pressure per square inch against the surface of the tooth. The jet travels at an estimated rate of two thousand feet per second. As the particles grind the tooth, the air pressure is used to keep it cool; in the meantime another larger nozzle on the suction principle aspirates the abrasive particles as soon as they have done their work.

I have had no experience with blast equipment, and consequently can say nothing about its advantages or disadvantages. Black's paper gives no information as to the volume of air that is required for an average drilling operation. However it seems prob-

lematical that the suction device for removing the particles can be completely efficient and the danger of aspiration of the abrasive material into the lungs of the patient will have to be considered. In addition Black states that the method is not a complete technique in itself as burs are still necessary to complete the work started under the airbrasive technique for sharp line angles in the cavity preparation of the tooth.

VAPOUR SPRAY

Each of the methods described has advantages and disadvantages. I have been using a technique for almost three years that is simple to the point of obviousness, and yet has proved highly successful. I have found that when water and air in the form of a finely atomized vapour spray is

used, the effects of cooling are better than those obtained by any of the preceding means.

The equipment which I have designed and which I use consists of small attachments (Fig. 1. 2. 3. 4.) which snap onto the contra-angle, the right angle or the straight handpiece, and can be slipped off without any effort when removing for sterilization. The attachments fit snugly without in any way interfering with their proper manipulation for the most delicate work. A thin rubber tubing about four feet long connects the attachment to a specially designed atomizer head, fitting the conventional type of spray bottle on the dental unit, or to one of a larger capacity if available. The spray bottle is kept filled with an aqueous solution of a standard mouth-wash, or better

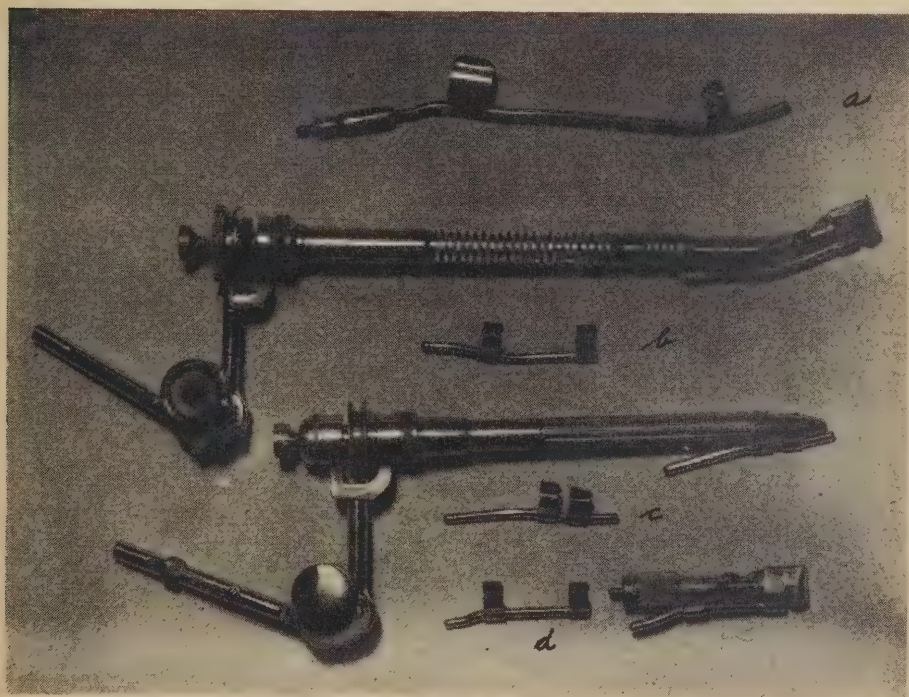


FIG. 1

- (a) Size of attachment recommended by early workers.
- (b) Small compact attachment for contra angle.
- (c) For straight handpiece. (d) For right angle.



FIG. 2

None of the attachments, or the specially designed atomizer head (b) are longer than 2 inches in length.

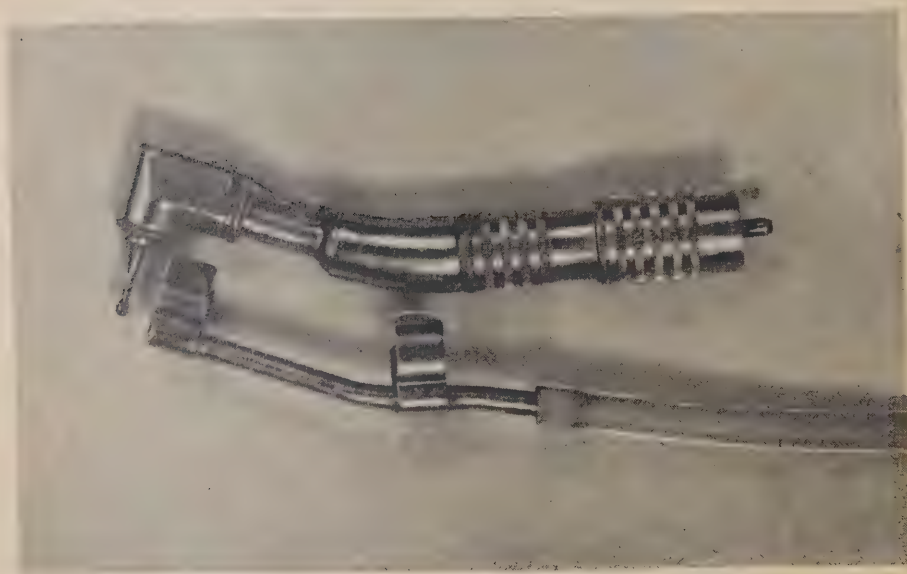


FIG. 3

Contra-angle attachment ready to snap on.

still, warm water flavoured with a drop of peppermint oil which will not clog the small outlet of the atomizer,

as caused sometimes by the salt content of some mouth-washes. The spray assembly is kept connected and in posi-

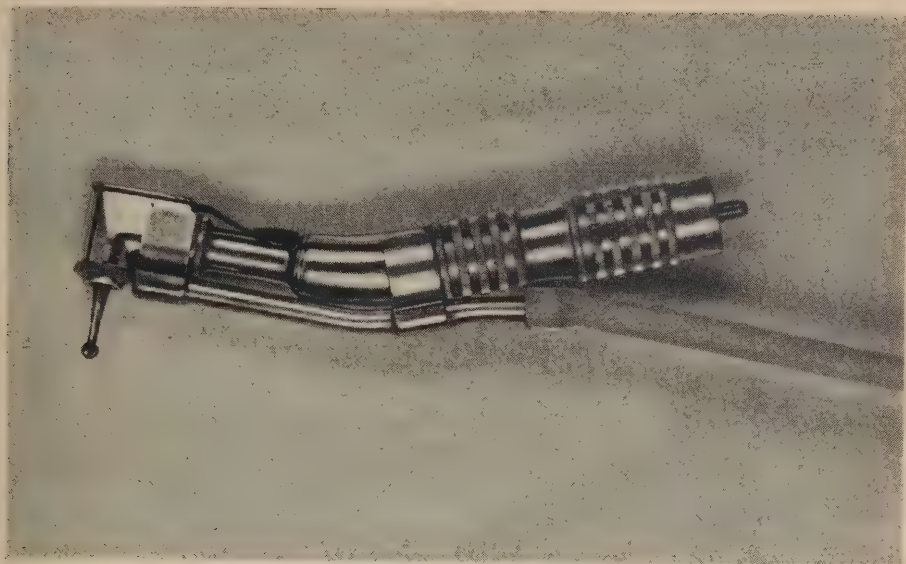


FIG. 4

Contra-angle attachment in position.

tion on the unit for immediate use when required. A clamp on the bracket arm close to the unit makes an excellent support for the spray bottle, and gives greater convenience when it is needed. The attachments have been kept small enough, (Fig 5) to fit into the palm of the hand when operating, and the rubber tubing does not interfere in any way with the pulley cords of the engine, as would occur with the larger or longer attachments, which have been sometimes recommended.

The ideal arrangement for using the equipment is by means of patient-control (Fig. 6). Handing the spray-bottle to the patient, he is shown how to operate the lever or button on the air-cut-off, by simply pressing it in all the way. He is directed to stop and start simultaneously with the drilling. Through the small opening in the head of the attachment, a finely atomized vapour spray of air and water is directed at the exact point of drilling, whenever the patient compresses the lever. The amount of liquid delivered into the mouth is

considerably less than by any other method, and it is possible to operate without the use of a saliva ejector, for reasonable periods of time.

ADVANTAGES OF THE METHOD

In my practice I have found the results actually startling. The psychological effect upon the patient is immediately apparent. He is distracted from the operation itself; he is a better patient immediately. There are many other advantages to this method of operating. By eliminating heat from the rapidly revolving bur, the pain in the cavity is reduced to infinitesimal proportions. Continuous operating is possible, thus increasing the speed of operating safely, and accomplishing much more in a given time. Visibility in the cavity is far better than by any other means, as the atomized vapour spray clears away debris, and blows everything out of the cavity. The usual sludge of saliva and tooth debris in the cavity is non-existent. Drilling and filling is easily possible now in the same day. Trauma to the pulp is greatly reduced

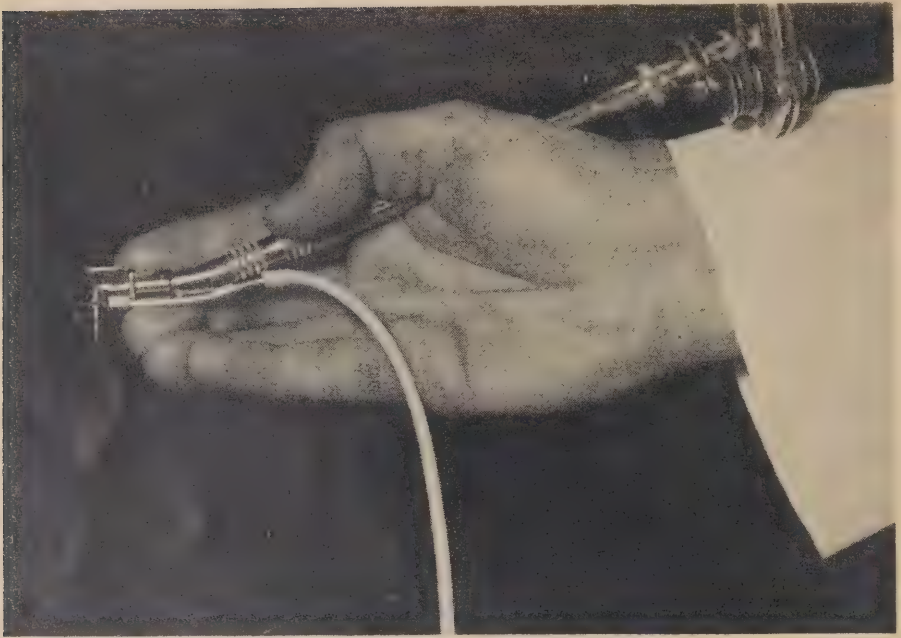


FIG. 5

as carious tooth matter is flushed out ahead of the bur, instead of being ground into the tooth. Burs remain clean, cutting edges stay sharp, and last much longer. The patient's participation in the procedure is an excellent psychological diversion from the thought of drilling. Operating time is truly cut in half.

This method has been used in my office for almost three years, and its utility and usefulness have been propagated by word of mouth to a large number of practising dentists in the province of Ontario, throughout Canada, as well as the U.S.A. There are, at the time of writing, over 300 dentists using this instrument with a great deal of pleasure and satisfaction.

Contrasting its efficiency with that of the air technique, I have found that when using the empty spray bottle, and thereby creating an air blast at the point of drilling, the pain experienced is greater than when using the

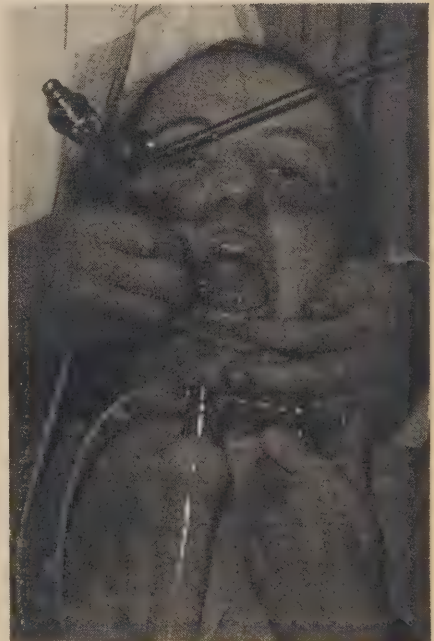


FIG. 6

The Vapour Spray apparatus is patient-controlled.

atomized vapour spray of air and water.

The desirability of thermal control advocated for years past, by all those who have given the problem time and study, no longer is questionable. The simple means by which it now may be accomplished, will, it is hoped, make it more widely practised, with resultant relief of pain to the patient and saving of time and energy to the operating dentist.

BIBLIOGRAPHY

- Black, 1945 Technique for nonmechanical preparation of cavities and prophylaxis. Jour. Am. Dent. Assn., **32**, 955.
 Black, 1945 Airblasting teeth. Time, **46**, Aug. 6, Page 40.
 Hyams, 1944 Tooth preparation under flow of water. Jour. Can. Dent. Assn., **10**, 435.
 Henschel, 1941 Pain Control through heat control. Dental Digest, **47**, 294.
 Henschel, 1944 Friction of revolving steel burs. Jour. Am. Dent. Assn., **31**, 895.
 Killilea, 1945 Air-conditioned handpiece. Jour. Am. Dent. Assn., **32**, 966.

ANNOUNCEMENTS

Vacancy in a Professorship in Dentistry

The University of Toronto has received word from the Department of External Affairs that there are a number of vacancies in various academic posts in Egypt. Among these is a Professorship in Dentistry in Fouad 1 University, Cairo.

Further information regarding this vacancy may be obtained at the Registrar's Office, Simcoe Hall, Toronto.

Council on Dental Education of the American Dental Association

The Third Congress on Dental Education and Licensure will be held in the Stevens Hotel, Chicago, Saturday, February 8. The following are among the subjects which will be discussed: Dental Curriculum and Examinations; Aptitude Test Programs; The Future of Specialties in Dentistry; Auxiliary Agencies in Dental Practice, namely the Dental Laboratory, the Dental Hygienist, and the Dental Assistant.

Northwest Conference in Dental Medicine

The Annual Meeting of this Conference is to be held at HARRISON HOT SPRINGS HOTEL, HARRISON HOT SPRINGS, BRITISH COLUMBIA, MAY 18-21, 1947.

For Further particulars contact the Secretary,

C. R. HALLMAN, D.M.D.,
 4298 Dunbar St., Vancouver, B.C.

Chicago Dental Society

The 1947 Midwinter Meeting of the Chicago Dental Society will be held at the Stevens Hotel, February 10-13. Officers and committeemen of the Society are planning a full scale meeting similar to those held prior to the war.

Ontario Dental Association 80th Annual Meeting

Royal York Hotel, Toronto, May 19-21, 1947.

FOOD AND HEALTH IN 17th CENTURY ENGLAND*

by S. BASTERFIELD Ph.D., F.R.S.C., Regina, Saskatchewan.

THE 17th. century has often been called the "Great Century" in European History. It was great for scientific discoveries and great for its revolutionary ideas in politics and government. It was the age of Galileo, Newton and Harvey; of Boyle, Locke, and Hobbes; of Descartes, Spinoza and Leibnitz. Physics, chemistry, mathematics and astronomy made astonishing advances. Biology also underwent a revolution but it was slower, and lagged because of the needed development and application of chemical and physical ideas. Consequently we find physiology and pathology still dominated by the ideas and talking the language of Aristotle and Galen. The few who struggled to apply the new experimental methods and rid their science of vague and mystical concepts were obstructed by the ultra-conservatism that was always desirous of settling questions by appeal to the authority of the ancients.

The difficulty was that while Aristotle and Galen were fairly dependable in their descriptions of what they observed for themselves, they were not trustworthy in the matter of interpretation or explanation of phenomena, because they worked with *a priori* principles or with generalizations not well founded in facts. They speak with the same air of authority when they try to explain digestion, respiration and the general functions of the body as when they are describing the parts and the relationship of structures. Their glib use of the principles of hot and cold, moist and dry, of heaviness and lightness, of spirits and humours, was accepted uncritically by their followers with the same seriousness and deference as was accorded to their frequently excellent descriptive passages. The modern biologist with his microscope

(which incidentally came into use in the 17th century) and his biochemistry, realizes how hopelessly impossible it was for Aristotle and Galen to formulate any sound theories of genesis and development of the organism, or of the function of organs in the whole co-ordinated life process. They did their best, but their dogmatic pronouncements on what they really knew nothing about were a great hindrance to the development of biology in later centuries. Down to this day medicine is haunted by the intellectual wraiths of Galenic pseudoscience, while popular thought is continually befogged by the mists that linger from that early day.

FOOD SITUATION

It is of especial interest to look at the food situation in the 17th century, and the state of health that was inevitably associated with it. It forms a background for problems of today and gives us an insight into these problems that we might not acquire otherwise. Some very illuminating writings are available which enable us to get a clear picture of conditions and which can best be understood by the light of newer knowledge of biochemistry and physiology.

One significant feature of the century was the rise of gardens and the resulting provision of fruit and vegetables in greater quantity and variety than at any previous time. Cabbages, carrots, and parsnips were widely cultivated, though potatoes had not yet become common. Market gardens began to flourish near large towns and the well-known Covent Garden market was established in London. The rich had large gardens on their estates and cultivated many fruits for their own use, though they made little

* Address delivered at the Dental Clinic arranged by the Canadian Dental Hygiene Council and the Canadian Dental Association at Regina in April, 1946.

use of vegetables except in broths and salads.

Owners of estates and wealthy farmers were well supplied with meat from their own lands and game preserves. Many of them kept well-stocked fish ponds. It was a general custom to kill many cattle in the fall season especially the old stock, and salt them down for the winter. Late in the century when turnips came to be recognized as good winter feed, animals were slaughtered as required and fresh meat supplies made available.

The food of the poor was frequently scanty and monotonous. There was such depression and poverty at the opening of the century that one third of the population of Sheffield, which was then a small town of two or three thousand people, lived by begging. Wages of labourers were about one shilling a day, and of artisans two shillings. Milk was relatively expensive especially where great estates flourished. The diet of the working classes consisted for the most part of broth made from beans and salt meat, fish, bread and cheese. In hard times only bread, salt fish, and cheese were to be had, and Thomas Muffet a medical man and diet specialist wrote in 1655 "Bread and cheese be the two targets against death". Near the end of the century, on account of poor harvests, the price of wheat almost doubled, rising from 30 shillings to 56 shillings per quarter. Matters were so desperate that John Locke reporting to the Board of Trade in 1697 said of the poor: "What the children under three years of age can have at home from their parents is seldom more than bread and water, and that very scanty too".

After the middle of the century rice began to be imported, and boiled rice came into use. The authorities of Christ's Hospital, a famous school in London, in 1689, authorized "a meal of rice once a week instead of water gruel." Later two meals of buttered wheat and one of rice were allowed per week. This was of course in addi-

tion to the standard diet of meat, cheese, porridge, bread and butter.

Bread, cheese, beef, and beer were staple foods for the labouring classes and the standard of living was judged by the amount of meat which could be obtained. Garden vegetables were not regarded with favour by the townspeople, but they were a valuable item to the country labourer in hard times. The lack of fresh vegetables is a conspicuous feature of all the diets as seen, for example, by the lists of supplies provided for sailors on fishing boats, or by the diet tables for hospitals. From a modern standpoint protein, fat and carbohydrate were well taken care of, also minerals and vitamins A and B; the serious lack was in vitamins C and D.

Another interesting feature was a steady increase in the consumption of butter especially among the working classes. Farmers found it profitable to raise milch cows, make butter and cheese to sell in the towns, and feed the whey and buttermilk to the pigs. This often meant that country children suffered from lack of milk except in so far as they shared the buttermilk with the hogs.

The wealthy and middle classes despised butter as a food and used it only as a cooking fat. They lived well on meats, fish, pastry and wines of many kinds. They used fruits as luxuries and "to keep down the vapours", but they regarded vegetables as "windy", a common teaching of the physicians, as one gathers from Robert Brunton's "Anatomy of Melancholy" where an exhaustive survey is given of the relation of diets to this particular distemper.

The current ideas about food and digestion were mainly these of Galen and his Arabic and Latin successors. Thomas Muffet, the previously quoted writer on diet and health, continually quotes the Greek physician, and solemnly says that there are three kinds of diet; a full diet, a moderate diet, and a thin or low diet. "The first increaseth flesh, spirits and humours,

the second repaireth only them that were lost, and the third looseneth them all for a time to preserve life". The Aristotelean touch is introduced in the description of foods as "hot" in different degrees, or moist, or dry or cold. He tells of a girl "of moist, cold complexion", who lived for months on pepper, and apparently thrived. Even men like Robert Boyle who were fairly radical in their chemical and physical theories, were extraordinarily credulous about the nature and effects of foods and medicines, and wrote the most fantastic nonsense. For example it was held that milk was only fit food for babes and old people. It was full of vapours and would cause sore eyes, agues, and rheums, cramps and convulsions. In young men it would cause stone in the bladder.

DEFICIENCY DISEASES

As one might expect after surveying the diets of the 17th century, deficiency diseases were rife, due mostly to the lack of vitamins A, C, and D, but also to imbalance of food components. We find for example that eye troubles were common among children of the rich and undoubtedly due to lack of milk and butter, and of green vegetables. Stone in the kidneys and bladder was a fairly common disorder among the wealthy, not consequent on the use of milk as was commonly thought, but rather to the lack of milk and butter. Physicians who were expert stone-cutters were in great demand. It has been shown by recent work that deficiency of Vitamin A with a fairly heavy proportion of calcium in the diet is conducive to formation of stones in the kidney. The poor who were using more butter suffered little from the disease. The alchemist Paracelsus held that the Dutch were less afflicted by stone because they ate more butter. It was an acute guess if nothing more.

Scurvy was widely prevalent due to the low consumption of fruits and

fresh vegetables particularly in winter. It was the scourge of sailors but was present in a milder form among landmen mostly in the springtime. Its origin was variously ascribed to the eating of salt meat, to atmospheric conditions such as fog and rain, or to living in damp and marshy places. The remedies in common use were lemon and vegetable juices, the plant "scurvy grass", and water cresses. These were supposed to contain some principle that counteracted the disease. In contemporary chemical terms they contained a "volatile salt which counteracted the gross and fixed salt in which the scorbutic humour abounds." In physiological terms the disease was explained as due to "the overflowing of black bile, obstruction of the spleen, and corruption of the humours etc." The famous William Harvey thought it was an infective disease of the skin.

The standard mode of treatment was to boil scurvy grass in milk, ale, beer or wine and drink the resulting liquid as a spring tonic for several days. An item in the household accounts of the Earl of Bedford in April 1653 (quoted in *The Englishman's Food*: Drummond and Wilbraham) mentions "fourpence to John Morrice for scurvy-grass to put in the children's ale." It may be noted that the recipes warned against too much boiling of the scurvy grass because the volatile salt might be driven off. The destruction of vitamin C by heat is the interpretation offered by the modern chemist.

Rickets was widespread among rich and poor alike and was accepted as an almost inevitable affliction. Modern biochemical studies have shown that for good bone formation adequate supplies of Vitamin D and a proper calcium-phosphorus ratio are indispensable. The precipitation of calcium phosphate in the required localities also involves the presence of an enzyme, bone-phosphatase. The presence of sufficient lime in the diet is not in

itself a guarantee of good bone formation; the other factors must also be operative. On the other hand if the food is deficient in lime no amount of Vitamin D is going to remedy the situation. This is well shown by the fact that many children in northern Norway suffer from rickets and bad teeth in spite of the amount of cod-liver oil they consume. Their food is poor in lime. It is interesting to note that the use of fish livers as a remedy for both rickets and night-blindness was known in the 17th century.

STATE OF TEETH

Although little is said in 17th century medical writings about the state of teeth it may be inferred from the known lack of vitamins C and D that poor teeth and tooth decay were common. Francis Glisson, a famous physician of the period, was the first to suggest that teeth might be affected by the same conditions as give rise to rickets. There is some evidence from skulls dug up in graveyards of the 17th and 18th centuries that carious teeth were common and that many teeth were lost during life. Tooth decay among the poor probably reached a peak during the 19th century and other causes, in addition to vitamin lack, were probably involved.

Occasional reference is found in both 16th and 17th century writings to the too great use of sugar as a cause of tooth decay. It was noted more especially among the rich who used more sugar and sweet confections than did the poor. Also with the increasing use of refined flour tooth decay seems to have become more prevalent. That there is a definite correlation between tooth decay and the use of white flour and refined sugar seems to have been established in recent years.

It has been reported by surveys that the white people of New Zealand have the worst record for tooth decay of any population in the world. Yet but-

ter consumption is high and in general there seems to be no definite lack of vitamins. At the same time the consumption of sugar and white flour products is exceptionally high. The Maoris show no tooth decay as long as they keep to their native diet, but if they adopt the white man's diet their teeth suffer.

West Indian natives although they chew and suck sugar cane from infancy, have good teeth except when they adopt the refined diet of the white population. The natives of Tristan da Cunha who lived mostly on fish, eggs, potatoes and other vegetables, with some milk, had little tooth decay until after 1932 when they began to receive greatly increased supplies of white flour and sugar. The incidence of tooth decay then rapidly increased especially among children. Incidentally tooth brushes were unknown to them prior to their adoption of a "civilized" diet. The tooth brushes were introduced with the new regime but apparently were quite impotent against the inroads of caries.

Finally it may be noted that meat-eating races such as the Masai warriors of E. Africa rarely exhibit tooth decay in spite of almost total lack of cleanliness. Other tribes that live mostly on starchy foods such as maize and yams show considerable decay. The starchy diets frequently have a very low calcium—phosphorus ratio while the meat diet has a fairly high one though not as high as that of some civilized diets.

Consideration of facts of this kind has led some investigators to suggest that meat and unrefined vegetable foods contain substances that protect the enamel of the tooth from attack by the acid of bacterial fermentations. It is quite evident that sound tooth formation and maintenance involve numerous factors and that while we have gone a long way beyond our fore-

bears of the 17th century in understanding this problem much research and education need to be undertaken before we are masters of the situation.

REFERENCES

- The Englishman's Food—J. C. Drummond and A. Wilbraham.
 Short History of Medicine. Charles Singer.
 History of Science, Technology and Philosophy. In 10th and 17th Centuries. A. Wolf.

ANNOUNCEMENTS

ANNOUNCEMENT UNIVERSITE DE MONTREAL FACULTY OF DENTAL SURGERY

Postgraduate Courses

SPONSORED BY THE W. K. KELLOGG FOUNDATION

The second of a series of one-week postgraduate courses and a certain number of half-day courses a week in Oral Surgery, Endodontia and Complete Dentures are to be given in the Faculty of Dental Surgery of the Université de Montréal, starting as follows:

ORAL SURGERY:

morning only: February 11, 12, 13, 18, 19, 20.
morning only: March 11, 12, 13, 18, 19, 20.
all day: April 21 to April 26.

ENDODONTIA:

one day a week: (three weeks) January 14, 21, 28.
one day a week: (three weeks) February 25, March 4, 11.
one day a week: (three weeks) April 25, May 1st, May 8.
all day: April 21 to April 26.

COMPLETE DENTURES:

all day: January 27 to February 7.
all day: February 24 to March 7.
all day: April 21 to May 2.
morning only: January 27 to February 1.
morning only: February 24 to March 1.
morning only: March 17 to March 22.

As the number of candidates that we can register is limited, applications should be sent in as soon as possible.

The Faculty of Dental Surgery of the Université de Montréal has made arrangements to give a two weeks postgraduate course in Orthodontia from March 10 to March 22 and from April 7 to April 19. Orthodontists only are eligible. This course will be given in English and French languages. The number of applicants is limited to 6 and the fee for the whole course is \$40.00.

There is also a graduate course in Orthodontia, of one year duration, which started last September. The next course will begin on September 15, 1947, and as the number of candidates is limited to ten, the application should be sent in as soon as possible for the coming year.

Any information regarding these courses and all applications should be made to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Blvd, Montreal.

The Forum

TREAT THE TOOTH AND THE CHILD

by RALPH L. IRELAND, B.S., D.D.S., Professor of Pedodontics,
Univ. of Nebraska, College of Dentistry, Omaha, Nebraska.

If dentistry is to fulfil its function in treating the child "as a whole," more is required of the dentist than just "to fill" and "to extract" teeth. While a knowledge of the operative procedures necessary to care for the primary and young-permanent teeth is essential, the dentist who works for children has other responsibilities.

Child Management and Child Guidance. Children are profoundly influenced by the moods of those about them, and their behaviour is largely the result of training and imitation. If the child's association with dentistry is to be a pleasant experience, the dentist's "approach" or "routine" during the child's first visit is of paramount importance. If the dentist recognizes the child as an individual; if he is honest, patient, and consistent in his treatment; and if he uses a reasonable amount of "horse sense," he will not go far wrong in managing children.

The impression a child gains on his first visit to the dentist generally determines his future behaviour in a dental chair and his future attitude toward dentistry. Still, a "follow through" procedure at future visits strengthens the dentist-child relationship. The dentist is not only preparing the child to be a good dental patient, but also can help in educating him to take his place in the world as a self-reliant person.

Supervision of the Child's Development. If the child's dental growth is to be thoroughly supervised, early and frequent examinations by the dentist

are essential. The first examination should be made when the child is 2½ years old, and thereafter, examinations should follow every 3 to 6 months.

In addition to examining the teeth for caries, calculus, and stains, the condition of the gingival tissues, mucosa, lips, tongue, floor of the mouth, hard and soft palate, and frenum labii should be noted. Conditions that may cause irregularities in the secondary dentition unless discovered early and treated correctly are: supernumerary, missing, ankylosed, and fused teeth; prolonged retention of the primary teeth; early loss of the posterior primary teeth, and lack of spacing in the anterior segment in 4 to 6 year olds. X-ray examination is indispensable for diagnosis and treatment planning.

During the examination the child should be asked to close his mouth with the teeth in centric relationship, and the occlusion should be noted. For the preschool child, the posterior arch relationship is satisfactory if the distal surfaces of the primary 2nd molars are in approximately a single plane.

Record models made at frequent intervals are valuable for observing growth and development and aid in detecting the beginning of irregularities.

The dentist can further extend his service to the child-patient by noting the height, weight, gait, posture, condition of the cervical glands, and the

general appearance of the child. Any abnormality suspected or discovered should be cause for referral to a pediatrician.

It should be kept in mind that the chronologic, physiologic, mental, dental and other ages of children do not always develop harmoniously. Behaviour is closely associated with growth, and perhaps one of the underlying causes of problem children lies in the inharmonious development of these various ages.

Intra-Oral Manifestations of Disease. Only a few of the many will be mentioned. The general diseases include measles, in which Koplik's spots appear on the buccal mucosa several days before the skin rash; rubella, which shows an eruption in the soft palate; scarlatina, with a sore throat and strawberry tongue; and mumps, with a swelling about the orifice of Stensen's duct (Cowie's sign). Chicken pox frequently shows vesicles within the mouth.

The chronic diseases of importance

are syphilis and tuberculosis. Syphilis is not truly hereditary, but may be acquired before birth. Late congenital syphilis appears in early adolescence and is responsible for Hutchinson's triad — interstitial keratitis, nerve deafness, and Hutchinson's teeth.

According to E. W. Hancock, M.D., of the Department of Pediatrics, University of Nebraska, tuberculosis in children is important only as indicating the need for future health care and as an epidemiologic tool in discovering active cases in adult associations of the child. After adolescence, tuberculosis is important.

The era of treating the "individual" tooth is over. Adequate dental service for children embraces a larger field and imposes on the dentist a greater responsibility to his young patients than he has in the past been willing to assume. In the future, the pedodontist, the pediatrician, and the orthodontist must be more closely allied in preserving the health of children.

—*From Dentistry, a Digest of Practice*

NICETIES OF HUMAN CONDUCT IN PRACTICE

by JOHN J. LUSARDI, D.D.S., F.A.C.D., Jersey City, N.J.

Excerpt from Jour. 2nd Dist. D. Soc., Oct. 1946.

Some of the detailed niceties of human conduct can be propounded in the following "don'ts":

1. Don't lie to your patients under any circumstances; truth will pay dividends.
2. Don't attempt anything unless you can foresee the outcome.
3. Don't take chances—surgery is not a game of chance.
4. Don't criticize your brother's work. We all make mistakes.
5. Don't nurse your practice. When in doubt do nothing.
6. Don't hesitate to refer your patients. You'll not lose them.
7. Don't hesitate to admit that a particular job is out of your line. Your patients will have more respect for you.
8. Don't, in referring patients to specialist, quote fees or determine the type of anaesthetic to be used. Let the operator be the judge.
9. Don't lose your head if something goes wrong—the patient is quick to detect your nervousness. Ask for a consultation.
10. Don't let the patient dictate to you as to what you should do. You should be the sole judge of the type of work to be done.
11. Don't think you can kid your patients. The public is too alert to dentistry today and you will soon be found out with disastrous result.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND: D. T. Wayne, Charlottetown	QUEBEC: E. T. Bourke, Montreal	ALBERTA: H. L. Freeland, Calgary
NOVA SCOTIA: Warren C. Oxner, Halifax	ONTARIO: T. R. Marshall, Toronto	SASKATCHEWAN: L. D. Haselton, Saskatoon
NEW BRUNSWICK: John E. Edgecombe, Saint John	MANITOBA: J. F. Morrison, Winnipeg	BRITISH COLUMBIA: H. M. Cline, Vancouver

Editorials

DENTISTRY AND RESEARCH

An old Scotsman was dying and summoned his minister to his side. "Will I be placed among the elect," he whispered, "if I leave ten thousand for the Free Kirk Sustentation Fund?" The canny minister replied, "It is an experiment worth trying."

Associated with the practice of dentistry there are a very great many experiments which are well worth trying no matter how disappointing the results may be in some cases, since, by the law of averages, some of our experiments will bring glory to our profession and blessing to mankind.

The motives of the research worker may vary. He may be keen for personal glory or to build up his self-esteem, or to have the satisfaction of discovering something entirely new, but I believe that most research workers make their great sacrifices for the betterment of mankind and deserve all the praise we can shower upon them.

For many years the greatest need facing the dental profession has been that of scientific research. We have been lacking in qualified workers. We have had financial handicaps. As individuals we have not been in the position to finance a large research as do some of the foundations. Opportunities like the Rockefeller penicillin project do not come to us and in many ways we lack knowledge and experience. However, I see many signs that we have the perseverance and the will to win.

In the spring of 1944, the Research Committee of the Canadian Dental Association under the able leadership of Dr. R. G. Ellis, following many meetings held in the interests of research, adopted a resolution to petition

the National Research Council to establish an Associate Committee on Dental Research. Following this a delegation went to Ottawa and was cordially received by Dr. McKenzie, President of the National Research Council. At a later meeting of the Council the request of the Canadian Dental Association was granted and the Council expressed its genuine interest in fostering the research spirit in the dental profession. At a meeting of the Council held March 16, 1945, the Associate Committee was authorized. The membership of the Committee which was set up comprised nine members from the dental profession and nine from the sciences, such as physics, anatomy, physiology, chemistry, biochemistry, metallurgy, endocrinology and pharmacology. The eagerness and enthusiasm which these science men, all leaders in their respective fields, have shown in the work of the Committee has been an inspiration. The first meeting of the Associate Committee on Dental Research was held in Ottawa, June 1, 1945, and since then several meetings have been held with interest growing steadily and definite progress being made.

Projects now provided for by "Grants in Aid" for the year 1946-47 are eleven in number. The total financial support given these projects is in the neighbourhood of \$20,000 although the budget also includes additional items for travelling expenses to meetings and secretarial work which brings the amount up to \$25,000.

In addition to this fine government support the Dominion Dental Council is graciously contributing \$1,000 a year for five years which has been a great aid in the establishment of the C.D.A. studentships in order to obtain trained research personnel which is one of our greatest needs. However, money is limited in its power. It can only release for creative work men of vision and ability and set them to work. The great contribution comes from the research worker who must spend long years in patient searching and even if he wins, the new found truth will benefit chiefly his fellow men.

The following is a list of projects being undertaken at the present time:

- D.R. 1—"An investigation of the chemical mechanisms involved in the decrease of dental caries by fluorides, by Dr. J. J. Rae and Mr. C. T. Clegg of the Dept. of Chemistry, Univ. of Toronto."
- D.R. 2—"A chemical study of Nitrous Oxide for dental anaesthesia by Dr. G. H. Lucas and Dr. R. J. S. Tickle of the Dept. of Pharmacology, Univ. of Toronto."
- D.R. 3—"A study of micro-organisms found in deep periodontal pockets as revealed by the electron microscope by Dr. H. K. Box of the Dept. of Periodontal Research, Faculty of Dentistry and Dept. of Physics, Univ. of Toronto."
- D.R. 4—"An investigation of packing materials in the treatment of periodontal disease by Dr. H. K. Box, Dr. C. H. Best, and Dr. W. L. Ling-

horne of the Dept. of Physiology, Univ. of Toronto, and Dept. of Periodontal Research, Faculty of Dentistry, Univ. of Toronto."

• D.R. 5—"To improve certain properties of the acrylic resin denture base and to effect an economy in denture production by Dr. R. L. Twible, Dr. A. E. R. Westman, and Mr. D. R. Christie of the Ontario Research Foundation."

• D.R. 6—"A study of the effects of altitude, acceleration, and deceleration on oral tissues by Col. D. S. Coons, of the Canadian Dental Corps."

• D.R. 7—"A critical survey of the literature on dental caries by Dr. J. S. Bagnall of the Faculty of Dentistry, Dalhousie University."

• D.R. 8—"The relationship of dental caries to the fluorine content of the communal water supply by Dean A. D. A. Mason and Dr. H. S. Hunter of the Faculty of Dentistry, Univ. of Toronto."

• D.R. 9—"An investigation of the effects of certain chemicals in materials in appliances used in prosthetic dentistry by Dr. O. J. Walker and Dr. H. R. MacLean of the Faculty of Dentistry, Univ. of Alberta."

• D.R. 10—"The application of various plastic materials to facial prosthesis by Dr. G. M. MacDonald of the D.V.A. Hospital, Montreal, P.Q."

• D.R. 11—"An anatomical, histological and physiological study of the role of the condyle in mastication by Dr. R. J. Godfrey, Dr. H. K. Box, and Dr. C. H. Moses of the Faculty of Dentistry, Univ. of Toronto."

All interested individuals or departments of universities should contact Mr. S. J. Cook, Secretary of the Associate Committee on Dental Research, National Research Council, Ottawa, in reference to any problem which might come to their attention.

We must not live in the past but we must turn our attention to the future and maintain the traditions for freedom of thought which have characterized scientists everywhere. Knowledge grows by research and only by research, and the function of research is to extend the boundaries of knowledge. We are well on our way and if scientific dental research is to continue there must be continued appreciation of its needs by our leaders and representatives. However, one could hardly attend any meeting of the Associate Committee on Dental Research and doubt the enthusiasm of our leadership. Research is our challenge and we will meet that challenge.

M. H. G.

PERSONAL EXPERIENCE

I made a new full upper denture for a lady and she was very much pleased with it. Several of her friends also commented on the improved appearance. One day I met her on the street and she was wearing the old denture. I asked her if something was the matter with the new one. Her reply was, "Oh, no, I just thought there was still some wear in the old denture and I am saving the new one for special occasions".

F. E. WARRINER, Winnipeg.

HEALTH WEEK, FEBRUARY 2-8

The Health League of Canada in active cooperation with official Departments of Health and of Education, churches, schools, women's associations, service clubs, press, radio, film and the general public, has organized HEALTH WEEK for February 2-8.

The purpose of this effort is to awaken in Canadian people a consciousness of the value of good health, personal, communal, and national; and to develop that awareness of the value of good health into vigorous action to obtain better habits and standards of health by personal behaviour and by legislation.

It is suggested that in every community the topic of health should be presented in at least the following phases: the churches, Health and Religion; in schools, Health and the School; in home and school associations, Women's Institutes, etc., Health and the Home; other programs can be arranged to fit the needs of the individual community.

It is undoubtedly true that the more people who think about their health, the more they will do to take care of that priceless possession. "The Week" is just another means of reawakening interest in public and personal health problems.

Dentists throughout Canada will no doubt support in every way possible this splendid project since ideal health is impossible without a healthy mouth.

M. H. G.

BOOK REVIEWS

Oral Diagnosis and Treatment, by Samuel Charles Miller, D.D.S., F.A.C.D., College of Dentistry, New York University. Second edition. Published by the Blakiston Company, 215 Victoria St., Toronto, Ont. Canada. 903 pages. Price \$11.00.

No greater need exists in dental practice than for the influence of this type of book. Generally speaking, a criticism is being levelled at the dentist today that too often treatment is undertaken without proper diagnosis. The sphere of diagnosis is covered and emphasized with clarity in proper relationship to treatment in *Oral Diagnosis and Treatment*.

Some thirty contributors, one of which is a Canadian, Dr. H. K. Box, have taken part in the production of this volume, each contributing from his special field. The practitioner will find the book a ready aid to difficult problems in diagnosis. It is profusely illustrated and a considerable number of the pictures are in colour.

One aim of the book is to define the rela-

tionship of the dentist and physician in the matter of diagnosis which is a most commendable purpose. It is written for the use of both physician and dentist. The fact, that the mouth often reveals serious systemic conditions before the patient is sufficiently aware of a departure from health to consult a physician, is emphasized.

"The dentist's responsibility, at present, is one of health service. His field is not limited to the technologic application of substitutes for parts already destroyed by disease, but the boundaries of his endeavour have been extended to the prevention and diagnosis of all ailments manifesting themselves within the oral cavity."

A review of the development of dentistry will clearly indicate a gradual swing toward the biological side in dental teaching. This aspect of dental science is gradually taking a greater place in dental practice. The general practitioner can make real use of a compendium of such useful knowledge as he will find in this book.

D. W. G.

Manual for Dental Technicians with Supplement on Acrylics by J. A. Salzmann, D.D.S., Chairman, Committee on Courses for Dental Technicians and Head of Dental Service, New York City Vocational Schools; Editor New York Journal of Dentistry. Copyright 1938, reprinted 1946 with supplement on Acrylics. 346 pages, illustrated. Published by C. V. Mosby Company, St. Louis. Canadian Agent, McAlinsh & Co. Ltd. Toronto. Price \$5.00.

The author of this manual felt that there was a need for organized instructional material for dental technicians in keeping with the teaching standards and methods accepted by the educational authorities of the City of New York. He has had the assistance of outstanding dentists and leaders in the dental laboratory field, and states that "the practicability of the material thus prepared was subsequently proved by its successful, practical application in the actual instruction of classes".

One very valuable chapter in the preface deals with safety instruction for dental technicians. Every sentence in the four pages covering this problem could well be underlined. The style of the book is that of the school room—each specific technique is given as a unit and developed under headings as; Process or Principle, Project or Jobs, Job Application, Procedure (detailed), Supplementary assignments, Questions, Job Appraisal. This is followed by related information.

Using the above method the author teaches the complete process of making a vulcanite denture in the laboratory. In keeping with the times, a supplement of fourteen pages has been added on acrylic resin technique. This book, if followed carefully, should be of great help to student technicians and to dentists teaching technicians in their own offices. Of course it does not teach any work other than denture service but perhaps that will be carried in future volumes. It is a very creditable work. KENNETH M. JOHNSON

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

A Message from the Secretary

IS IT JUSTICE?

As a parent, have you been told that your children should have a minimum spending allowance of \$25.00; that your son is entitled to a Cadillac roadster and your daughter has the right to expect a mink coat? Or has not the Utopian trend of thought, so common in public thinking, struck your domestic household yet? Such views are not too far out of line with some of the suggestions being made on higher levels today.

The inter-changing of terminology is leading to much confusion in public thinking. Ever since the four freedoms were enunciated the terms "justice" and "economics" have been inter-changed. Too often official statements are couched in terms to mould the listener into a particular attitude of thought rather than a true interpretation of the principle involved. Straight thinking is the shortest road to progress. Confused thinking can only lead to disaster. The existence of confusion between what is justice and what is economics may easily be one of the funda-

mental reasons which will lead the world astray.

Justice means fair treatment for the individual, the right of man to equality before the law and protection from arbitrary actions. Economics means the practical production and distribution of monies for all the purposes involved.

The result of this false concept is that many people are of the opinion that justice means:

1. That any boy who wants to be a dentist has a right to be.
2. That any person desiring dental health services has a right to those services.
3. That everyone has a right to more income and less work.
4. That if anyone has a chicken on Sunday that everyone has a right to a chicken in the pot.

All these objectives are fine and no attempt here is being made to argue for or against any part or all. What we mean to point out is that it is not justice being talked about but economics pure and simple.

1. The right of a boy to a dental education depends upon his own ingenuity, the ability or willingness of his parents, the government or some other agency to pay his expenses and his own ability to pass the required examinations.

2. The right to dental health services depends upon the receipt of payment by those who render the services from the individual concerned, the government or some other branch of organized society.

3. More income and less work means higher costs and very often making the individual worse off in the end, purely a problem in economics.

4. Who is going to raise the chickens when they are handed around free?

The theory that the world owes every man a living is a debt which few, if any, ever can make collection. Why spend endless time discussing the justice of all these things when the energy spent would be better employed by using all available talent toward solving the economic problems underlying the incongruities of our way of life. How easy it is for the demagogue to hold forth for the justice of this and that by uttering half-truths. How seldom is the real solution presented. We should straighten our thinking. Current problems would be assisted in their solution if what is justice were considered justice and what is economics was treated as economics. Often we have heard and will hear in the future health services discussed on this Utopian plan whereas the problem is one of practical economics. D. W. G.

The World Health Organization

"On July 22, 1946, an historic day for public health and medicine, representatives of 61 nations signed the constitution of the World Health Organization, the first fully empowered international agency in public health.

The International Health Conference, which established the World Health Organization, was the first conference to be called by the United Nations. It is appropriate that this honour went to the field of public health and medicine and emphasized its role in the development of international peace and friendship. The World Health Organization is the first specialized agency of the United Nations

to which every member of the United Nations has subscribed. More than that, nations not members of the United Nations were invited to the deliberations and were asked to join the Organization, and 10 such nations also signed the charter.

The nature and the purposes of the World Health Organization are well implied in its name. Deliberately discarded were more restrictive names, such as the International Health Organization or the Health Organization of the United Nations. For the first time emphasis was laid not upon quarantine and checking epidemics and other defensive measures, but upon positive aggressive action toward health in its broadest sense. The preamble begins upon this note, declaring that 'Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.' This standard of health is defined as one of the fundamental rights of every human being."

The participating States declare that the following principles are basis to the happiness, harmonious relations, and security of all peoples:

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.

The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and States.

The achievement of any State in the promotion and protection of health is of value to all.

Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.

Health development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.

The extension to all peoples of the benefits of medical psychological and related knowledge is essential to the fullest attainment of health.

Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.

Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures."

The objective of the World Health Organization shall be the attainment by all peoples of the highest possible level of health.

The functions of the organization are extensive and among them are those:

1. Of directing and coordinating authority on international health work;
2. To assist governments upon request in strengthening health service;
3. To promote cooperation among scientific and professional groups which contribute to the advancement of health;
4. To promote maternal and child health and welfare;
5. To promote and conduct research in the field of health;
6. To promote improved standards of teaching and training in health, medical and related professions;
7. To provide information, counsel and assistance in the field of health;
8. To assist in developing an informed public opinion among all peoples on matters of health;
9. Generally to take all necessary action to attain the objective of the Organization.

Dentistry has not, as yet, had any official connection with W.H.O. Some preliminary discussions have taken place between the Federation Dentaire Internationale and the World Health Organization. At the recent meeting of the American Dental Association the following resolution was adopted:

"Be it resolved, that the House of Delegates of the American Dental Association recommend the appointment of at least one qualified dental representative from each of the member nations of the World Health Organization, and that such representatives be appointed as dental advisers to the delegates of the World Health Assembly from the various nations; and be it further resolved, that the above resolution be submitted to the

officers of the World Health Organization, to the Executive Board of the World Health Assembly, the President of the United States, the Surgeon-General of the United States Public Health Service and to the delegates who represent the United States in the World Health Assembly".

Income Tax Relating to Dentists

Many points have been brought to attention respecting income tax matters as related to members of the dental profession. A definite feeling exists among dentists that as a group they are not fairly treated when comparison is made to other groups. The most prevalent complaints are related to the following matters:

1. Allowance For Use Of Automobile

The use of an automobile is a necessity in the carrying on of dental practice. Every general practitioner of dentistry, in order to fulfil his responsibility, must make calls at the homes of patients in many instances. Emergencies arise after treatment and patients confined to their residences must have treatment. Dentists, with hospital or clinic appointments, where operating two offices, sometimes several miles apart and those with part-time appointments on teaching staffs certainly have to use an automobile in performing their duties. Yet, no allowance is made under the present regulations for the use of the dentists' automobile. It is stated that "taxi fares incurred for purely professional purposes will be allowed but the expenses including depreciation of a personally owned car will not be admitted".

The Income War Tax Act does not specify under exemptions and deductions anything respecting this matter and like many other points it is left to the drafting of regulations by the Minister. However it is stated under Taxable Income Defined that "For the purposes of this Act 'income' means the annual *net* profit or gain or gratuity, whether ascertained and capable of computation as being wages, salary, or other fixed amount, or unascertained as being fees or emoluments, or as being profits from a trade or commercial or financial or other business or calling, directly or indirectly received by a person from any office or employment, or from any pro-

fession or calling, or from any trade, manufacture or business, as the case may be whether derived from sources within Canada or elsewhere; etc."

2. Allowance for Post-Graduate Education

Deduction from taxable income of expenses for attendance at post-graduate courses, conventions and clinics is most desirable from the stand-point of professional advancement. It has been argued that it is more important to make allowance for the improvement of mental than physical equipment and to the greater benefit of dental services to the public. The fact that such allowance is made in United States has been stated.

The answer given is to the effect that capital gain is not taxed in Canada as it is in United States and that allowance for post-graduate education would be classified in that category.

3. No Deduction Allowable From Salary

"A salary is considered as 'net' for Income Tax purposes. The salary of a dentist is therefore taxable in full without allowance for membership fees or annual dues to governing bodies, and other like expenses. If the contract with his employer provides that such expenses are payable by the employer, they will be allowed as an expense to the employer in addition to the salary paid to the assistant."

—Memorandum regarding Returns of Members of Dental Profession.

An increasing number of dentists are becoming employed upon a salary basis of employment. The general rule of the department is "No deduction allowable from salary". In commercial pursuits it is said that the employer very often assumes such fees thus relieving the employee. For the most part dentists under salary are employed by governments and universities and in no case have we knowledge where the employer assumes this expense. Under this heading there are two types of expense, first that which is paid voluntarily and secondly that which is paid as a necessity in order to retain employment.

In respect to this latter point two salaried public officials of Winnipeg and members of the legal profession won an important de-

cision before the Court of the Exchequer. The court ruled that expenses incurred in earning an income are not taxable, regardless of whether the taxpayer is on a fixed salary or receives his income by other means. The department may appeal, bring in a limiting amendment or accept the ruling. In the event that the ruling is accepted the way will be opened for appeal from other salaried professional taxpayers.

Manitoba Increases Grant to \$8.00

The following statement has been received from The Manitoba Dental Association respecting a resolution passed at a meeting of that Association on November 4 last.

"A resolution re-affirming our statement of 1943 to the effect that we think that the annual dues paid to the C.D.A. should be at least ten dollars and undertaking to pay this sum when a majority of the provinces do likewise and in the interim beginning in 1947 we promise to pay \$8.00 per registered member regardless of what the other provinces do."

It is further stated that Manitoba would pay for the year 1946 the sum of \$5.00 *per Caput* for all registered members of The Manitoba Dental Association.

Manitoba has given most encouraging leadership toward placing the financial structure of the C.D.A. upon a satisfactory basis and is to be congratulated upon the present action in this respect.

Two other resolutions were passed by the Manitoba Association which will be referred to the Dental Services Committee for action. Statements submitted respecting these resolutions are as follows:

"A resolution drawing attention to the discrepancy in the dental fees paid by the D.V.A. for services rendered ex-service personnel as compared with those paid in the U.S.A. for similar services and urging that the C.D.A. endeavour to have this matter corrected by an upward revision with a fee included for examinations."

"A resolution urging that all persons receiving D.V.A. benefits be permitted to go to their own dentist for dental service. This includes students under the D.V.A. We understand that this privilege is now conceded for medical service."

Dr. J. K. Carver Elected Vice-President

Due to the illness of Dr. A. Fortier, it became necessary to elect a new Vice-President. for the Canadian Dental Association. The Nominating Committee submitted the name of Dr. J. K. Carver for election. Ballots were prepared and a mail vote taken of the members of the Board of Governors. The result of the election was the unanimous election of Dr. Carver.

Revision of D.V.A. Schedule of Dental Fees

The following statement has been issued by the Director of Dental Services, Department of Veterans Affairs.

"Authority has been received for the following amendment to present D.V.A. Schedule of Dental Fees to become effective October 1, 1946.

(C) Radiograms and diagnosis

- | | |
|---|--------|
| (1) Single intra-oral film | \$2.00 |
| (2) Each additional film | 1.00 |
| (3) Complete series, upper or lower
(7 films) | 6.00 |
| (4) Full mouth series (14 films) and
maximum in any one case | 10.00" |

Proposed Action in Saskatchewan

The following article summarizing the proposed action to be taken by the legislature in Saskatchewan appeared in the Toronto "Globe and Mail" on December 7, 1946. The article is written by Wellington Jeffers, Financial Editor of that newspaper, and should be of great interest to the members of all professions.

"WATCH CCF BILL TO TAKE DISCIPLINARY POWERS AND TO MAKE ALL PROFESSIONS IN SASKATCHEWAN OPERATE UNDER YEARLY LICENCE AND TO SET FEES.

If the next session of the Saskatchewan Legislature approves legislation now being considered by the continuing committee of the Law Amendments Committee, the Government will take over all disciplinary powers now exercised by doctors, lawyers, dentists, druggists, architects, accountants, nurses and other professional members through their associations.

Nineteen special boards would thus govern professions and practices instead of the

professional associations which have developed codes of ethics and standards of practice and ability under which all members have been operating. A doctor, lawyer, chiroprapist, osteopath, surveyor, engineer, music teacher, embalmer, optometrist, chiropractor, therapist, agrologist, veterinarian, drugless practitioner, dentist, druggist, architect, accountant or nurse, under the new law as proposed, could only practise in Saskatchewan under license revokable by the appropriate special board.

Setting Professional Charges

I heard about this proposal when in Regina recently, but had the idea that the CCF Government, with its high-pitched program for health and hospitalization and medical services, would not proceed to such lengths. I see by a news article in the Regina Leader-Post, however, that the matter is now moving ahead rapidly. There is one very important feature of this intended legislation which I do not see mentioned in the Leader-Post article, but which is of immense significance to all professions in Canada because it will be the "entering wedge". That is the proposal that the new boards shall prescribe the maximum fees chargeable by licensees for professional services.

The clause requiring every professional man to apply to be licensed before the end of 1947, on pain of losing his right to practise in the province, would be troublesome enough. The clause making these licenses renewable every year would also have an unsettling effect. The inquisitory powers of the councils of professional associations with regard to any professional man about whom there are complaints are kept, and indeed made obligatory, but the reports have to be made by government boards which will have formidable disciplining powers. Those would be dangerous powers for any government. The recent statement of Premier Duplessis that he was refusing a license to conduct a liquor establishment under the Quebec law because the licensee was a member of a sect whose beliefs seemed to him wrong and dangerous is an example in point. I might agree with him on the opinions, but would absolutely disagree with the right of any government to punish people for their beliefs by interfer-

ing with their means of livelihood. The only justification for refusing the liquor license would be that he ran the business improperly.

Any kind of government should avoid totalitarian exhibitions of power, and should bend backward to do it. I have no doubt that some of the promoters of this new legislation may have the best of benevolent intentions toward us all, once they get us where they want us, but somehow it always works out in the end in tyrannical acts. It is just now a suicidal sort of law for Saskatchewan to enact. It needs all its doctors and dentists and nurses, and more as well. The government made private enterprise bypass the province by its decision to enter industry in various lines. Many, who now reside in the province, would take such an act as this as an intimation that they would be well advised to move elsewhere. I do not believe that this is what was wanted by the great mass of farmers who voted the CCF Government into power at the last election. A move like this will not stop with the professions. No one can suppose that his turn will not come some day to be required to get a license, to have it revokable, to be told what he can charge, what profit he can make, if any, and to be kept afraid to express an opinion different from that of his masters for fear of what might be done to him.

Should be Watched

There are 19 acts now on the Saskatchewan statute book with regard to professions. Anything in them inconsistent with the new act would cease to have force if it is approved. The main change which would occur immediately is the provision of a number of civil service jobs on the 19 boards to be formed and thus the faithful would be rewarded. Once formed, they would exert the powers given under the leeway given by the bill for the government to make regulations about each association. The associations would remain but their powers and rules and ethics would be prescribed for them if boards named would have any duties at all.

This legislation seems to indicate that the promises that the Socialist government would not move far toward socialism in the province because so many non-Socialists voted for CCF candidates in the last election are being forgotten. What the legislature does in this and other matters should be studied all over Canada. Likewise what it does in taking over and running industry should also be studied. It has not done too well even in this comparatively riskless period when competition is not operating as powerfully on demand as it will when production revives. A time is coming, however, when events and trends will hit rude blows upon any ill-conceived ventures."

D. W. G.

NEWS FROM THE PROVINCES

ONTARIO

Royal College of Dental Surgeons of Ontario Elects New Board

The results of the regular biennial election of members of this Board has been announced by the registrar-secretary Dr. Don W. Gullett.

District No. 1—	C. M. Purcell.....	Pembroke
"	2—S. J. Phillips.....	Oshawa
"	3—F. A. Blatchford.....	Ft. William
"	4—H. W. Reid.....	Toronto
"	5—G. H. Campbell.....	Orangeville
"	6—J. F. Giffen.....	London
"	7—R. O. Winn.....	Kitchener
"	8—H. L. Field.....	London

Faculty of Dentistry, University of Toronto—
E. W. PaulToronto

It will be noted that Dr. S. W. Bradley of

Ottawa has been succeeded by Dr. Murray Purcell of Pembroke; and Dr. J. E. Amos of Brantford has been replaced by Dr. R. O. Winn of Kitchener. Dr. Bradley is retiring chairman of the last Board of Directors: both he and Dr. Amos did not stand for re-election as they desired to retire. Both men have given freely of their time and ability for a number of years and gave excellent service to the work of this important provincial dental Board.

Academy of Dentists Annual Winter Clinic

On November 28, the Academy of Dentistry, Toronto, convened at the Royal York Hotel for its annual winter clinic.

The number of registrants from out-of-town

was the largest yet and by noon an all-time high attendance record had been established.

Throughout the morning the crowded group clinic rooms gave ample proof that interest was keen in all branches of dentistry.

The noon-day luncheon, under the chairmanship of Dr. F. Harold Shepherd was so well patronized that over-subscription became a problem; eventually well over 300 members were seated. This large audience listened with marked interest to Rabbi Abraham L. Feinberg who spoke on "The Price of Peace—Are We Willing To Pay It?"

In the afternoon the group clinic sessions continued with splendid patronage. At 5 o'clock Dr. Charles McLean provided entertainment by showing his collection of coloured still pictures and a travelogue entitled "A Glimpse of the Canadian West."

The 6 o'clock dinner was high-lighted by entertainment which was greatly enjoyed by the large number who attended.

The evening session was given over to table clinics put on by the Dental Trades, Allied Trades, Dental Nurses and Dentists, continued keen interest being shown which was very gratifying to the committee who had worked hard for weeks in the preparation of the program.

MARK G. BOYES

Hamilton Dental Society

Dr. P. G. Anderson of Toronto was the guest of this Society on December 11. Fixed bridge prosthesis was the subject and it was presented with the usual simplicity and skill of a fine teacher. There was a record attendance of members and visitors from outside points. Guests included Dr. R. O. Winn of Kitchener, newly elected member of the provincial dental Board for his district, Dr. R. P. Lowery, Vice-President of the Ontario Dental Association and Dr. John A. Bothwell, President of the University of Toronto Dental Alumni. Members of the Society generously contributed \$100.00 to the Alumni fund for expenses of the Executive.

The President, Dr. A. H. Leckie, presided.

Ottawa Dental Society

The executive of this association have planned a splendid program for the year. Lecturers and clinicians from various centres in Canada and United States are expected to present current thought concerning different phases of dental practice.



President DR. PAUL COTÉ
Ottawa Dental Society

Dr. Tom R. Marshall of Toronto was our guest on November 9 and his subject was "The management of your practice" looking to present needs and with an eye to future trends. Some 75 members were in attendance.

Dr. R. R. Dagg of Montreal was our guest on December 9 and gave a presentation in Prosthetic dentistry.

In our three meetings slated for 1947 the following program is arranged.

Dr. M. N. Stern of New York city will present a clinic on January 13, at both morning and afternoon sessions and a lecture in the evening. The presentation will include (1) Acrylic Jacket Crowns—preparation . . . processing and cementation. (2) Acrylic Bridges—spindles . . . castings . . . structural balance. (3) Acrylic Inlays.

Monday, February 17

Dr. E. Carl Miller of Cleveland, Ohio will give a practical clinic commencing 9.30 A.M. and repeat it again at 2.30 in the afternoon. In the evening Dr. Miller will review and summarize all procedures.

Monday, March 10

This will be the closing meeting of the year. Fine outstanding clinicians have been

invited to demonstrate "The manipulation of materials commonly used by the profession". Clinics will begin at 2.30 P.M. and will be followed by dinner at 6.30 and a speaker.

The executive in planning the year's activities have found it necessary to increase the membership dues to \$15.00. This fee entitles each member to dinner at each meeting. All former members of the society who have been recently from Military services have been granted a complimentary membership for this year. The society also offers "Group accident and sickness Insurance" as well as the "Blue Cross plan for hospital care".

The Ottawa dental society invites dentists in the Ottawa district into their membership. Those living outside a 25 mile zone from the city may join on payment of a \$5.00 fee.

Executive officers for 1946-47

President—Dr. Paul A. Coté

Hon. President—Dr. Harold E. Armstrong

Vice President—Dr. Elwin S. McCartney

Secy. Treas.—Dr. George W. Barrett

Committee—Dr's J. W. M. Lawrence, C. Lawrin, P. Nesbitt, F. Thompson, A. Couture, Lorne MacLachlan, George Hutchison and A. C. Stinson.

Toronto Study Club of Dental Technicians

On November 20, Dr. Douglas Tanner was guest speaker at this Club giving a review of his work with the Canadian Dental Corps in England, Africa and Italy which was most interesting and educational.

On November 27, through the courtesy of Mr. Ed Green, members of the club were invited to attend a demonstration by the able technician, Mr. Thomas Nicholl of the Stern Gold Company on precision attachments for partial denture construction. The meeting concluded with refreshments, thanks to Mr. Nicholl and Mr. Green.

Many technicians availed themselves of the invitation to attend the Toronto Academy Winter Clinic, gaining a better understanding of the dentists' prosthetic problems.

Officers of the Club for this year are as follows:

President, W. L. Walker; *Vice-President*, J. Tebbitt; *Secretary*, R. C. Brown; *Recording*

Secretary, C. Blandford; *Treasurer*, C. H. Mellish.

The Executive members are: Ford Sawden, D. Rollaston, J. Price, S. Furie, W. McCullough, J. Washbrook. *Honourary member*, C. L. Daly.

QUEBEC

Montreal Endodontia Society

At the November 15 meeting of this Society with Dr. Marcel Archambault presiding, Dr. Prescott Mowry, Professor of Periodontia, and Head of the Department of Operative Dentistry at McGill University, spoke on "Endodontia and Histology". This presentation, given in the speaker's usual enthusiastic style, was a real refresher course in dental histology, and was greatly enjoyed and appreciated by all the members.

Gift to McGill

Listed among recent gifts to McGill University is the following:

"Dr. Frank Mendel, Montreal, Donation to the Faculty of Dentistry for expenses of teaching Endodontia, \$500."

NOVA SCOTIA

Halifax Dental Society

At the November 28 meeting a report was given on the recent meeting of the "Fall Clinic" held in Montreal.

Dr. L. J. Archibald, the secretary, was chairman for the report. Among the members who had attended the clinic the following contributed to the discussion: Drs. W. E. Barnstead, H. S. Crosby, F. W. Johnson, and J. McGuigan.

BRITISH COLUMBIA

Vancouver and District Dental Society

On December 3 Dr. Gerald D. Stibbs of Vancouver addressed this Society on "Operative Dentistry with Particular Reference to Gold Foil." He discussed the subject under the following headings, using many excellent slides: Anaesthesia, Rubber Dam Application, Careful cavity preparation; Complete removal of carious dentine; Proper construction, finishing and insertion of restoration. Dr. Stibbs made a point of stressing the removal of all carious material which apparently is done in

very few cases, due to neglect on the part of the operator or inability to recognize its presence.

The main part of this paper had been given at the National Convention of Canadian Dentists held in Toronto last May. Dr. Stibbs is particularly qualified to deal with the subject and gave the membership something to take away with them and apply in daily practice.

The following were elected to membership in the Society: Drs. Lorn O. Lind, J. Blair Wolfe and A. B. Porter, Graduates of the University of Toronto; and Dr. D. H. Warren, Graduate of the University of Alberta.

British Columbia Dental Association

This Association will join with the Western Canada Dental Society for next year's convention to be held at Banff, Alberta, June 13-15.

The Interior has already started a Dental Association to be called the "Interior Dental Association". Dr. Fred Parmley was active in getting it under way. Good work, Fred! The attendance at the organization meeting was 100%. Drs. Jack Chambers, Emery Jones and Bob Pallen attended from the Coast to give some assistance.

The officers are as follows:

President Dr. W. J. Netherton, Penticton
Vice-President Dr. Lloyd English, Kamloops
Secretary.....Dr. J. Day, Penticton
Executive, Dr. Geo. Froome, Kamloops;
 Dr. Sam Hannah, Vernon; Dr. C. D. Newby, Kelowna; Dr. J. L. Lundy, Oliver.

It is the hope of your executive to have some of our members journey to the Kootenay-Dental Society.

ALBERTA

Calgary Dental Society

On December 10, Dr. Harry Gilchrist of Edmonton addressed this Society on "Impressions and Impression Materials." Forty-five men listened with intense interest to this fine presentation.

SASKATCHEWAN

College of Dental Surgeons

At the Annual Meeting of the College of Dental Surgeons of Saskatchewan the following were elected to office:

President.....Dr. W. M. Blair
Vice-Pres......Dr. M. J. MacDonell
Sec.-Registrar.....Dr. L. J. D. Fasken

Moose Jaw Dental Society

The new officers for this year are as follows:

President.....Dr. A. E. Chegwin
Vice-Pres......Dr. Fred Cooper
Sec.-Treasurer.....Dr. Duff Leask

Drs. Craigie and Blue were welcomed into the Society as newcomers. They both served in the Canadian Dental Corps.

Saskatoon Dental Society

This Society unanimously endorsed the plan of an annual clinical tour of the Western cities and wrote to Dr. Scott Hamilton, Dean of the Alberta Dental College, Edmonton, accordingly. It was felt that such a plan had many beneficial possibilities.

Mr. S. McEachern, the Commissioner for the Board of Trade spoke on problems contiguous to this city, such as "The Wheat Agreement with Great Britain", "Freight Rates", "Irrigation Project", etc. He was optimistic regarding business conditions for Western Canada for the next four years.

On Dr. Cameron's tour recently, the Society held a dinner meeting to extend hospitality and to learn of the work of his Department with the Veterans.

Regina Dental Society

On November 12 following a business session, the members repaired to President Riffel's office, where a clinic on the C.D.C. Periodontal Pack was ably given by Dr. Lorne Craigie of Moose Jaw. Basing his presentation on knowledge gained through special courses, Dr. Craigie held the interest of all present as he outlined the uses of the pack, followed by a practical demonstration.

Dr. L. J. D. Fasken, who thanked Dr. Craigie, was highly complimentary in his remarks on the ability of this young clinician, at this his first clinic, and prophesied for him a bright future.

Dr. W. K. Martin, a newcomer to the Society was welcomed.

MANITOBA

Winnipeg Dental Nurses and Assistants Association

On December 2 this Association entertained as guests many friends of the members, with

the President, Miss Ethel Brown, presiding. A social time followed the business meeting.

DOROTHY A. MCCULLOCH

Looking Backward

Seventy years ago, last December 4, a want

felt for some time in Winnipeg was about to be supplied; Dr. Lockhart, a young dentist from Ontario opened an office in Winnipeg and until then, dentists had been unknown in this community.

EMPIRE NEWS

GREAT BRITAIN

The Field-Marshal and Morale

It is not only the industrialist who is interested in the problem of morale. The soldier is equally so. And it was a packed and enthusiastic audience that greeted Field-Marshal Montgomery when he delivered the Lloyd Roberts Lecture on "Morale" before the Royal Society of Medicine at the end of October. Dressed in his famous battle dress the Field-Marshal did not mince his words. Here was no attempt to outline a new theory. In that direct style, now so familiar, he outlined the problem as he had encountered it. Leadership, discipline, comradeship and self-respect: these, in his opinion were the four fundamental attributes of morale. Regimental traditions, welfare, good administration and propaganda were important factors, but merely subsidiary ones. For an hour he held his audience engrossed, and his reception at the end clearly showed that one of the most specialized audiences he can ever have addressed was more than satisfied that they had learned much that would be of value to

them in their thought and practice.—*From "London Letter" in Canadian Medical Assoc. Jour.*

Surgeon Dentist to The King

Alan C. R. McLeod, of London, England, was appointed "Surgeon Dentist to the King" of England in July of this year. He was graduated from the University of Pennsylvania Dental Department in 1928 and received his B.Sc. (Dent.) University of Toronto in 1929. He went to England and received his L.D.S., R.C.S. (Eng.) in 1930. Dr. McLeod was a lecturer in the University College Hospital 1932-45; Officer-in-Charge, Dental Dept., East Grinstead Maxillo-Facial Unit, 1939-45, and Lecturer, Post Graduate courses to ex-service dentists in 1946. He is a member of the British Dental Association, American Dental Society of London and American Dental Society of Europe.

We salute and honour the King at this time and pray that God in His infinite wisdom may guide and protect him during these difficult times.—*Dental Alumni Quarterly, Univ. of Pennsylvania.*

GENERAL NEWS

Voluntary Prepayment Plans

A new conception of the problems on both sides, with a brighter prospect for cooperative effort than ever before, resulted from the conference in Chicago between officials of the American Medical Association and representatives of insurance groups of all classes, including non-profit organizations, for the promotion of voluntary prepayment plans for medical care.

Dr. E. J. McCormick, of Toledo, chairman of the council on medical service of the A.M.A., in summarizing the results of the conference, stated that both groups are in agreement that the objective can be achieved most effectively and economically through the

development of voluntary prepayment and insurance plans to cover the expense of medical and hospital care, and the development of such plans and the making of them available to the American people.—*Accident and Health Review per Public Health Economics.*

Dental Hygienists

The University of Pennsylvania has assigned the Illman School and Dormitory Building exclusively to the Dental Hygiene students of the University and in the future this building will be called the Evans House. This dormitory will accommodate approximately 50 students. Plans for a dining room to serve all meals are under way.



DENTAL CARE OF DISPLACED PERSONS

Going to the dentists is—well, if not fun—it's a great deal nicer in a room decorated with comic figures, well lighted, and a pleasant doctor, Lunja Smelte, of Riga, Latvia, doing the work. Elena Grenzbigs, from Liepaja, Latvia, has her teeth checked.—Submitted by Dr. A. B. Sutherland of the UNRRA.

C. W. Waldron Named Adviser to Federal Hospital Council

Dr. Carl W. Waldron, professor of oral surgery at the School of Dentistry, University of Minnesota, has been appointed dental member of the advisory committee to the newly-formed Federal Hospital Council.

United Nations Organization

by DR. H. A. WILKINSON,
Toronto, Ontario.

Two world wars in one generation and another probable one capable of destroying civilization with Atomic Power is indeed a grim prospect. What more important consideration faces you and me today than the prevention of war? Is anything of any importance if we fail in this?

War can only be prevented by the nations of the world, including the most powerful, joining in an international organization to achieve this purpose. This has been done and we have the United Nations Organization. Perhaps you are saying "Look at it at work,

charges, counter charges, rivalries, suspicions, what a hope!"

True, all has not been smooth sailing and many hopes have not been realized but the U.N.O. is still functioning and nothing else can do the job. It is this or nothing.

While there have been so many discouraging facts about the work of the General Assembly and the Security Council, there are other so-called "Specialized Agencies" which, while not so much in the public eye, are doing important work in seeking to remove the causes of war, in the economic, cultural, agricultural and other fields. There is much reason to believe that in these agencies, dealing as they do with the very practical matters where international cooperation is imperative in this world, there lies the greatest hope. For in learning the technique of cooperation and establishing trust and confidence surely there is even more hope of preventing war than in centering attention on a World Police Force or in writing Treaties.

One of the latest of these agencies to be

formed is the "World Health Organization". Canada is honoured by the appointment of Dr. Brock Chisholm as Deputy Director. It may be of interest to know that its predecessor, the Health Section of the League of Nations was one department which functioned even throughout the war. During those years weekly reports on communicable diseases in every country continued to go through Geneva to every national centre including the Connaught Laboratories in Toronto. Surely health is one subject on which no international disagreement is likely to arise. This agency then should provide one with the best opportunities for learning and demonstrating the art of international co-operation. The question then arises: Has Canadian Dentistry taken steps to see that we are represented on this organization? If not should we not act at once to see that our profession plays its fullest part in this most important matter.

Unless the U.N.O. becomes something more than an association of governments, it is in great danger of failing to achieve its ends. Only as it is backed by the interest and co-operation of the citizens of each country, who after all must suffer most from its failure, can it be assured of success.

Each country has a United Nations Society to which every citizen is urged to belong. Surely as individuals belonging to a learned profession, we dentists should lend our support by sending in the modest membership fee of \$2.00 to the United Nations Society, Ottawa. For this members will receive the monthly magazine which will keep them informed about the activities of the Society, or better still why not organize a branch of the Society in your Community? This would be a real contribution to the cause of world peace.

Once more: If war should come again, what else would matter?

American Dental Association

Total membership in the A.D.A. is 64,038, six hundred of whom are life members. Over eleven thousand carry the A.D.A. Insurance.

The 1947 meeting will be held at Boston the first part of August. This will be a full scientific meeting. 15,000 dentists are expected.

There are 78 persons on the payroll of the

A.D.A. at the central offices at 222 East Superior St., Chicago. Plans are in the making for a pension plan for these employees similar to that employed in industry.

Compulsory Health Insurance

The American Legion of California, at its August convention in San Francisco, reaffirmed its 1945 opposition to compulsory health insurance legislation with a warning against increased tax burdens and regimentation of the medical profession. The 5,000 convention delegates represented approximately 170,000 California Legionnaires.

West of The Wind

Electrically Transcribed Radio Programs

Produced by Bureau of Public Relations,
American Dental Assoc. 222 E. Superior St.
Chicago 11, Ill.

"*West of the Wind*" consists of thirteen 4½ minute transcribed radio programs. Each broadcast presents an exciting episode taken from an approved book for children, rewritten for radio by Ruth Harshaw and told by Harry Elders, one of radio's most gifted story tellers. In addition to the highly dramatic story, each broadcast contains a short dental health message.

"*West of the Wind*" programs have been specifically designed for the two-fold purpose of interesting children in good literature and encouraging them to take better care of their mouths. They may be sponsored by the dental society, or preferably by the dental society in cooperation with the board of education, board of health or public library.

Northwest Conference in Dental Medicine

In this issue of the Journal there is an announcement of a meeting of this Conference at Harrison Hot Springs in May. This organization has the approval of the Vancouver and District Dental Society, the British Columbia Dental Society and the Canadian Dental Association, as well as the endorsement of all bodies in the United States according to the Secretary, Dr. C. R. Hallman.

The objects of the organization are to promote a better understanding of the fundamentals of the basic sciences, biology, internal medicine and other allied and borderline fields of chemistry and medicine; to develop the

principles of prevention and their practical application in dental and medical practice: and to bring together annually or oftener interested professional men and women, for a period of not less than twenty hours, to present the latest advances in the borderline fields of dentistry and medicine, in the form of a concentrated course of instruction, demonstration and discussion.

Active membership is limited to members

in good standing in the A.D.A., A.M.A., C.D.A. and C.M.C.

Annual dues shall be five dollars payable ninety days before the meeting. Application for membership is to be accompanied by one year's dues.

The conference is being registered as a non-profit corporation in the State of Washington and with the United States Bureau of Internal Revenue.

There should be a greater spread of professional education. Our members must be acquainted with social trends, professional ethics, legislation, civic activities, and welfare work: lead in dental health education by contact with the Parent-Teachers Association, public health, school department, hospital service, postgraduate courses, research, grants to dental education, and a general renewed activity in our organization. A golden opportunity is being neglected. Dentistry has been good to us: I feel something should be put back into our profession by the members. They should show more interest in our problems, attend meetings, serve on committees, give clinics, write papers, and sell dentistry to the public. The need for an informed membership has never, perhaps, been as great as it is at the present. Professional, technical, social, military and economic problems are under discussion everywhere.

—Bernard C. Kingsbury in *Jour. of Cal. S. D. Assoc.*

The problems for the future are to find and to recognize true talent and leadership, to keep open the road to the top for all individuals possessing these qualities regardless of social status, and to maintain in scientists a greater concern for the good of the many than for selfish gain. These problems will become more pressing as more money, more power, and more prestige are attached to the scientific calling.

And further as the Moe Committee wrote, "It will not be sufficient, if science is to remain healthy in root and branch, merely to develop a large number of scientists and to provide them with the support necessary of creating a better understanding of science in our national life, so that public approval and support for the future development of science will be forthcoming."—R. W. Gerard, Univ. of Chicago, in Science.

Pick up a copy of any popular magazine and read the many advertisements for private military schools, high priced furs and other luxuries. The average smoker spends sixty dollars per year and more for cigarettes which provide none of the advantages of two well-made inlays. His tobacco goes up in smoke. Prior to Pearl Harbour, 46½% of families and single individuals had incomes of \$1,000 or less per year. Out of this gross sum, provision had to be made for rent, food, clothing, recreation, and other minor essentials, leaving less than \$50.00 per year for both dental and medical care. No more than 3% of our populace are in the upper income brackets. It must, therefore, be borne in mind that the average dentist is rendering service to the average income patient. He must receive what the "Sage of Red Bank," Dr. Herbert Ely Williams calls "Bread and Butter Dentistry."

As dentists, we have a responsibility to society. It is our "Job" to keep the mouths of our patients in as fit condition as possible, and this we can do by a whole-hearted appreciation of our patients' problems and by cooperating with those interests to our best ability.—S. Joseph Bregstein, D.D.S. in Tic.

IN MEMORIAM

Calvin S. McComb, of Port Arthur, Ontario, aged 62, died December 4 in Western Hospital, Toronto, following an operation. He was graduated from the Royal College of Dental Surgeons of Ontario and for several years practised dentistry at Blind River near Sault Ste. Marie before moving to Port Arthur 35 years ago.

He was Master of Thunder Bay Lodge, No. 618, A.F. and A.M., served as alderman on the Port Arthur City Council in 1931 and subsequently on the school board. He was a member of the General Hospital Board and of the St. Paul's United Church board of governors. He was a charter member of the Port Arthur Golf and Country Club, a member of the Pine Ridge Hunting Club and of the Shuniah Club. He was a Shriner and past master of Shuniah Lodge, A.F. and A.M.

Dr. McComb is survived by three children, Dr. Cedric McComb, dentist, who practised in Port Arthur with his father; Dr. Renwick McComb, physician of the Western Hospital staff, Toronto; and one daughter, also two grandchildren.

Walter Thomas Willard, of Toronto, Ontario, aged 71, died November 26. He was graduated from the Royal College of Dental Surgeons of Ontario in 1899. He was a member of the Toronto Academy of Dentistry, Stanley Lodge, A.F. and A.M., Weston Golf and Country Club, and an elder of High Park United Church.

Dr. Willard is survived by his widow, one son, and two sisters.

Ozro Herman Bertrand, of Calgary, Alberta, aged 55, died November 29, of a heart attack while driving his car just south of the city limits.

B. Sproule, of Moncton, N.B., died December 11.

He had travelled extensively in the frozen wastes near the Arctic Circle which resulted in his being called to Hollywood as technical advisor in at least one moving picture of northern adventure. Costumes and trophies which he had collected in his travels have been used in many movies and have been displayed in Moncton on several occasions, attracting much favourable comment.

Dr. Sproule is survived by his widow, a brother, Dr. Heber Sproule of Newcastle and a sister.

Francis S. McGrory, of Cardinal, Ontario, died on December 20 at the age of 53.

Dr. McGrory was graduated from the School of Dentistry of the Royal College of Dental Surgeons of Ontario in 1915. He began his practice in Ottawa. In 1937 he moved to Cardinal where he continued to practise until his death.

He was a member of the Knights of Columbus.

He was a member of Fairmont Golf Club and the Chaudiere Golf Club.

Dr. McGrory is survived by three sons.

John Warren Coates, of Bradford, Ontario, died at York County Hospital in Newmarket on November 30 at the age of 54.

Dr. Coates graduated from the School of Dentistry of the Royal College of Dental Surgeons of Ontario in 1917 and immediately began practice in Bradford.

He was a member of Bradford United Church.

He is survived by his widow, one daughter and one son.

Contribution à l'Amélioration du Matériel Chirurgical Employé dans le Traitement de la Pyorrhée Alvéolaire* (Suite)

par JULES THEBAUD

*Présentation de quelques instruments
et moyens techniques pour conditionner
la guérison des tissus après le Cureta-
ge Radical.*

*Une méthode qui n'est pas encore
assez répandue*

La modération apportée à la dissection de la gencive par Kirkland et d'autres opérateurs dans l'exécution de la méthode du "Flap" ou du "Curetage Radical" telle que préconisée originellement par Zentler et Neuman a fort heureusement minimisé les dangers de complications inflammatoires, (*Dessin 2*), mais beaucoup d'opérateurs ont encore des appréhensions au sujet des aléas post-opératoires, parce qu'ils savent qu'il n'est pas toujours facile de bien suturer et de stabiliser les deux parties, labiale et buccale, de la muqueuse gingivale. L'expérience prouve encore que des inconvénients peuvent subvenir, même après les interventions bien faites, parce que:

(10) la muqueuse subit des tiraillements et des déchirures presque imperceptibles au moment du passage de l'aiguille.

(20) que le frottement et la force de succion de la langue, de la joue et des lèvres tendent à écarter les deux parties

de la muqueuse au lieu de les rapprocher.

(30) que le matériel utilisé pour les points de suture subit dans le milieu buccal, plus que dans n'importe quel autre partie du corps, l'action de la salive, que, au lieu de former un milieu neutre, entretient des conditions exceptionnelles d'humidité, à des températures variables.

Si ces inconvénients sont écartés par d'importantes améliorations apportées à la méthode du "Curetage Radical," elle est appelée à prendre une place de choix dans la chirurgie conservatrice, contrairement à la gingivectomie, qui entraîne trop souvent le déchaussement des dents et la mutilation des tissus de support, bien que dépendant d'un procédé plus expéditif.

Avenir de la méthode du Curetage Radical modifié

Quand on considère les justes remarques de Gottlieb et d'autres pathologistes, qui n'ont pas pu vérifier "in vivo" l'état nécrotique des bords alvéolaires, on apprécie de moins en moins l'usage des instruments en forme de scie spécialement affectés au curetage et à l'ablation des éléments du paradentium, dans l'exécution de certaines techniques recommandées pour la gingivectomie; et c'est précisément le bien fondé des prin-

*Travail primé du Concours Casgrain—Charbonneau 1946.

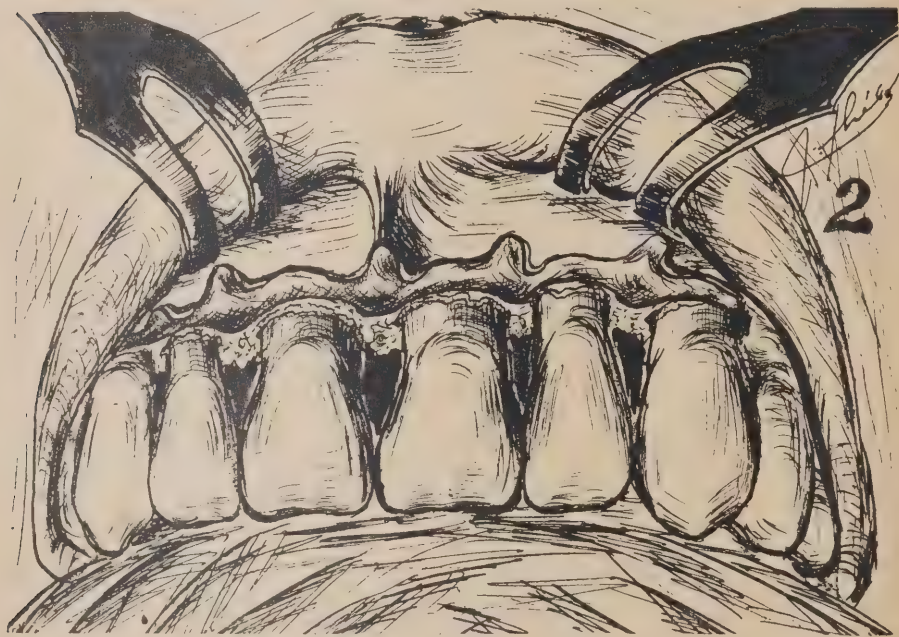
†Voir numéros de novembre et décembre 1946.

cipes de conservation de ces mêmes éléments de support de la dent, qui mettent aujourd'hui en relief les avantages des méthodes conservatrices susceptibles de satisfaire au point de vue esthétique et thérapeutique tout en atteignant les tissus pathologiques et en supprimant les clapiers pyorrhéiques.

La Périodontie Clinique devra formuler des règles, comme cela a été fait en Dentisterie Opératoire, en vue de limiter les indications et les contre-indications en ce qui concerne l'adoption de la gingivectomie et du "Curetage Radical" dans le traitement des cas Avancés de Parodontose.

tro-coagulation, paraît inefficent et aléatoire.

Beaucoup semblent réserver ce mode d'intervention au traitement d'une ou de deux dents entrepris isolément; d'autres, la limitent uniquement aux dents antérieures. Mais quand les règles seront édictées en Périodontie Opératoire, au sujet du traitement chirurgical pour les cas "mûrs", il se produira à ce moment un heureux retour Vers l'Emploi modéré du curetage radical modifié ou de la "flap opération", méthode, qui gagnera alors à être largement vulgarisée à mesure qu'elle sera simplifiée et rationalisée.



Curetage radical modifié

Nous connaissons par expérience tous les avantages qu'on peut tirer du "Curetage Radical Modifié," quand au niveau des dents antérieures les clapiers sont profonds et que la gencive se trouve en pleine récession; surtout, quand par rapport à l'étendue des lésions pyorrhéiques, l'emploi du curetage subgingival, de l'oxygène "atomique", et de l'élec-

trique elle-même est un travail long et minutieux, mais elle ne comporte pas de grandes difficultés techniques comme les débutants semblent parfois le prétendre. C'est la dernière phase, Celle de la Suture appelée à garantir le succès de l'intervention qui est, d'après nous, la phase la plus délicate, la plus fastidieuse, et qui consti-

lute, de par son importance, une deuxième opération.

Ceux qui ont tendance à abandonner la technique du "Curetage Radical" pour ne pratiquer que la Gingivectomie, même dans les cas où celle-ci n'est pas indiquée, parce qu'ils ont observé des poussées inflammatoires post-opératoires au curetage, seront peut-être les premiers à reconnaître avec nous, que pour éviter les risques d'insuccès, il conviendrait:

(1o) de proscrire l'emploi du crin pour ces sortes de suture.

(2o) d'employer un matériel à ligature plus souple.

(3o) d'employer des instruments spéciaux susceptibles d'empêcher la dilacération des tissus par l'aiguille et par les forces de traction exercée au moyen des ligatures pendant la confection des noeuds ou points de suture.

C'est à l'appui de cette opinion que nous présentons ici des recommandations sur le choix du matériel pour les sutures, fil à ligaturer et aiguilles; et sur les instruments spécialement affectées au passage de l'aiguille à travers la muqueuse.

Nécessité d'une suture stable et durable

Après la lecture des savantes recherches d'Orban, de Gottlieb et de Box, nous pensons constamment à l'arrêt possible de la cémentopathie et au phénomène de réimplantation des fibres dans le ciment; et nous sommes constamment guidés par la pensée que peu après l'opération, il se forme sous la muqueuse qui a été déplacée ou disséquée, un caillot sanguin qui entre rapidement en voie d'organisation et dans lequel s'installent aussitôt les fibroblastes et les ostéoblastes à fonctions biologiques bien déterminées. Les conditions normales pour l'organisation définitive du caillot sanguin sousmuqueux est d'une importance considérable en périodontie, car la guérison ou l'amélioration à longue échéance dépend non seulement de l'état de santé du patient, du pouvoir de réhabilitation des cellules du paradentium, du degré des lésions pyorrhéiques, mais surtout de

la façon dont les tissus sont conditionnés par les "points de suture" après l'intervention.

Quand il se produit un relâchement trop rapide de la suture, les complications peuvent entraîner l'ébranlement des dents dans un foyer de périécementite ou d'ostéite.

Le but de la technique que nous présentons ici est précisément d'empêcher l'accès des fluides buccaux chargés d'éléments septiques et de débris alimentaires; et aussi d'obtenir, autant que possible, un rapprochement "biologique" des tissus, car le contact parfait et la guérison par première intention des deux papilles interdentaires la buccale et la linguale ne s'obtiennent pas toujours à coup sûr; ils ne se réalisent sûrement que dans le cas d'absence de contact proximal entre les dents.



DESSIN 10

Technique courante pour la suture de la muqueuse gingivale

Ordinairement, pendant le passage de l'aiguille à travers la gencive, on cherche à la stabiliser, en la maintenant en place au moyen d'un hémostate, ou d'un instrument quelconque afin d'éviter de la déchirer. Et les manuels de Chirurgie Buccale n'indiquent que sommairement, au moyen d'illustrations, la façon "usuelle" dont se pratiquent les points de suture entre les dents, après le "Curetage Radical," sans décrire aucune technique spéciale. (Dessin 10.)

Notre technique

Nous présentons ici, pour la suture de la muqueuse, l'usage de trois instruments qui permettent de maintenir les

papilles bien en position entre les dents, à l'abri des déchirures produites par le passage de l'aiguille et les mouvements de traction des ligatures.

Ces instruments que nous appelons *passer-aiguilles*, sont au nombre de trois, dont les Nos 1 et 2 servent pour le côté buccal des 2 maxillaires, et le No 3, en forme de U, pour le côté palatin ou lingual. (Fig. 22.)

Les passer-aiguilles Nos 1 et 2, (droit et gauche) sont de forme elliptique et présentent au centre un "8" dont les lumières sont assez larges pour permettre le dégagement des noeuds après leur confection. Une fente pratiquée à l'extrémité de ces instruments, permet le



FIG. 22

libre accès du fil et de l'aiguille. La partie à appliquer sur la gencive, au niveau de l'espace interdentaire, est légèrement concavo-convexe, ce qui permet de bien les adapter sur les bourrelets de la gencive, au niveau de l'espace interdentaire.

L'instrument No 3 sert plus particulièrement à passer l'aiguille du côté interne ou lingual; sa courbure en "U" permet une application aisée à toute la partie interne des arcades. Grâce à une lumière assez large, le noeud peut être fait dans le centre de l'instrument, pendant que la gencive est maintenue en place. (Fig. 23.)

Détails sur le mode d'emploi des trois passer-aiguilles

Le passer-aiguille No 1 peut être utilisé de la façon suivante:

(1o) Pour le maxillaire inférieur, de la 3ème molaire droite à la canine gauche, et 2o pour le maxillaire supérieur de la 3ème molaire gauche à la canine gauche. (Figs. 25a, 25b.)

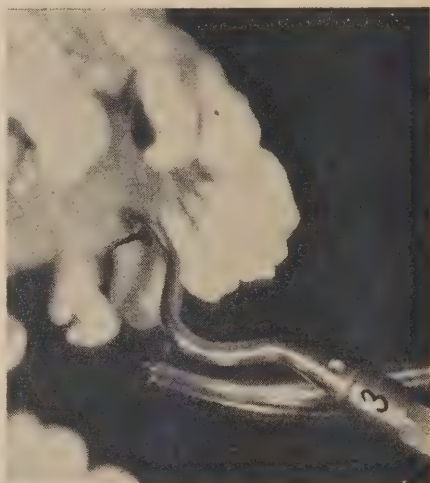


FIG. 23

Le No 2, est employé avantageusement pour le maxillaire inférieur, de la 3ème molaire gauche à la canine gauche. Et pour le maxillaire supérieur, de la 3ème molaire droite jusqu'à la canine gauche. (Figs. 26a, 26b.)

L'usage de ces instruments (droit et gauche) devrait se limiter de la 3ème molaire à la partie médiane des deux arcades, mais pour rendre plus commode l'intervention de l'aide qui maintient l'instrument au moment de la confection des noeuds, leur emploi peut s'étendre de la 3ème molaire droite jusqu'à la canine gauche, pour les deux maxillaires, pendant que la tête du patient se trouve fortement inclinée à gauche, c'est-à-dire du côté de l'aide.

Si l'opérateur n'est pas en mesure de se procurer les passer-aiguilles, Nos 1 et 2, cet instrument peut (Fig. 27) aussi

bien être employé du côté buccal que du côté lingual et dans n'importe quel espace interdentaire, à la manière d'un "passe-aiguille universel".

et la muqueuse interne, le noeud est façonné du côté buccal, et à ce moment, on cherche à maintenir les papilles dans

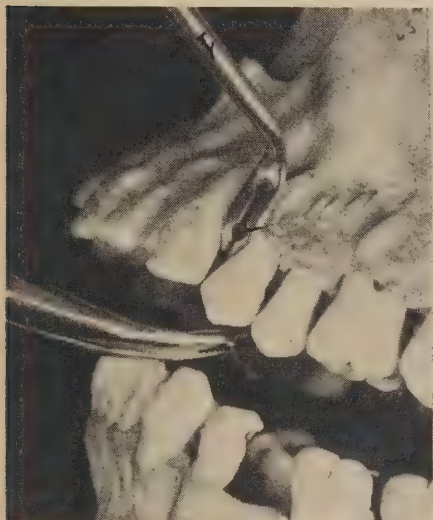


FIG. 25a

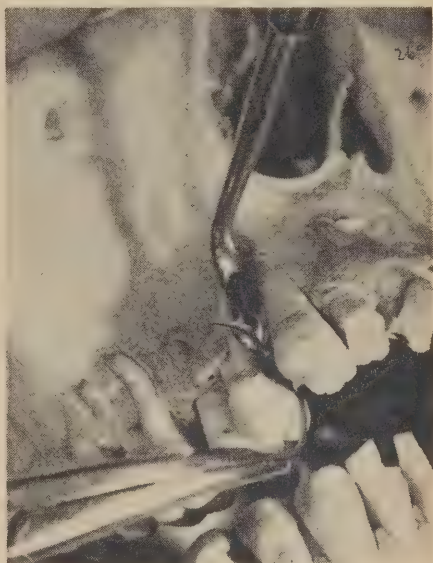


FIG. 26a

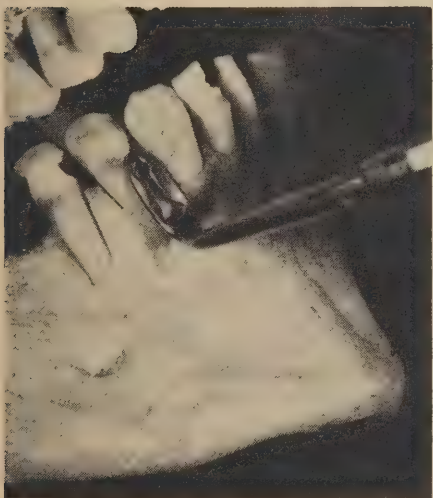


FIG. 25b



FIG. 26b

SUTURE SIMPLE A LA REGION ANTERO-INFERIEURE (de canine à canine).

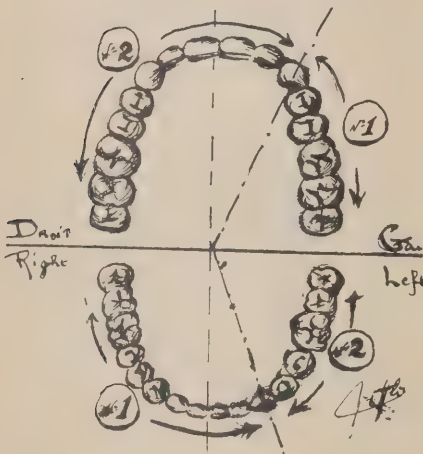
Dans la technique courante, l'aiguille après avoir traversé la muqueuse externe

une position stable au moyen d'un instrument *quelconque* (?).

Voici les mouvements que nous recommandons pour la suture des deux



FIG. 27



Ce diagramme résume le mode d'emploi des ces instruments

papilles, au maxillaire inférieur, de canine à canine:

1er Mouvement: l'aiguille en direction linguale passe librement dans l'espace interdentaire. (Dessin 11a.)

2ième mouvement: L'aiguille est maintenant retournée du côté externe et la pointe traverse la papille linguale (Dessin 11b), en s'engageant dans l'espace interdentaire, évitant ainsi de perforer du

27

même coup la muqueuse du côté buccal. (Dessin 11c.)

3ième mouvement: L'aiguille, qui a traversé l'espace interdentaire librement est engagée sous la papille que l'instrument permet de perforer sans effort en la laissant passer par l'ouverture située à son extrémité. (Dessin 11d.)

4ième mouvement: Le passe-aiguille toujours maintenu à la même place par l'assistant, l'opérateur fait un premier noeud chirurgical et un deuxième noeud ordinaire. Après quoi on enlève l'instrument qui laisse sortir le noeud par son ouverture. (Dessins 11e, 11f.)

Position de l'Aide

Pour exécuter cette technique dans tous ses détails, il est indispensable que l'opérateur soit assisté d'une aide dont la fonction importante est d'écartier la joue au cours des différentes manipulations, et surtout de maintenir et de stabiliser le passe-aiguille durant la confection des points de suture.

La position idéale de l'assistant ou de l'assistante est à *gauche du patient*, sauf pour les interventions faites sur la partie postérieure du maxillaire droit (haut ou bas); là, au moment de faire le noeud, l'assistante se place plus avant du patient afin de maintenir le passe-aiguille "in situ". De toute façon, l'aide doit écartier la joue ou les lèvres, pendant cette opération délicate, de manière à donner une visibilité nette du champ opératoire.

Matériel à suture

La petite aiguille courbe No 18 est la seule que nous recommandons à cause de la délicatesse des papilles à suturer.

Pour traverser les muqueuses, ainsi que les espaces interdentaires, il est plus commode de tenir l'aiguille le plus près possible de l'oeil.

Crin

Les points de suture faits dans la bouche au moyen du crin sont très instables et se dénouent rapidement parce que le crin est trop rigide.

Il irrite la langue et les joues et obéit trop facilement aux mouvements de traction de la langue.

L'expérience nous permet de lui imputer la plupart des échecs causés par le relâchement des parties de la gencive suturée. C'est pourquoi nous proscrivons son usage, ainsi que les ligatures en substance plastique ou Nylon.

Catgut

Le catgut, quelque soit son calibre, et même quand il est préalablement traité

quelques heures sur la structure des tresses qu'elle relâche.

Fil de soie dentaire ou "Dental Floss"

Ce matériel donne de bons résultats. La cire ou la paraffine, dont elle est revêtue, donne un caractère de grande stabilité aux noeuds, et il résiste bien à l'action de la salive. N'étant pas présenté sous une forme stérile en tube fermé,



DESSINS 11a, b, c, d, e, f.

à l'acide chromique, a le désavantage d'exercer trop de traction sur les tissus, au moment de la préparation des noeuds. Comme le crin, il est trop peu stable, parce que pas assez souple.

Fil de soie

Le fil de soie tressé noir ou blanc, le No 9 ou le No 000 nous permet d'obtenir des noeuds plus stables que le crin et le catgut. Mais la salive agit après

nous le soumettons au préalable à l'action de l'alcool à 90°.

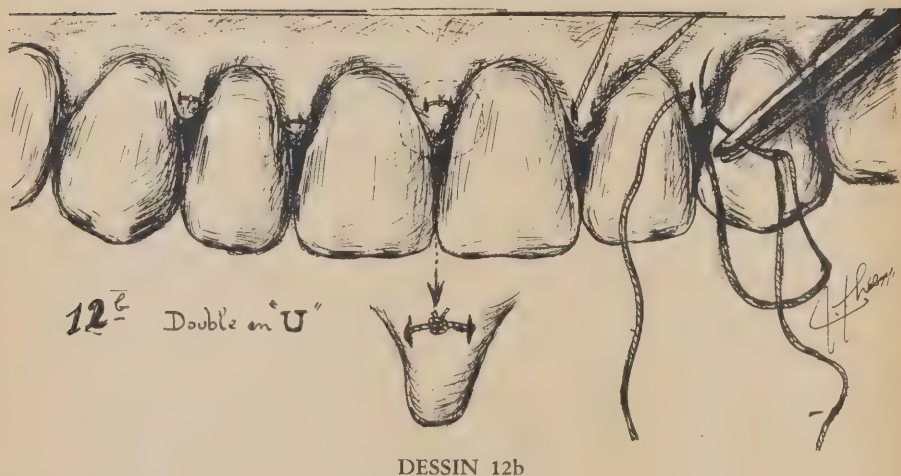
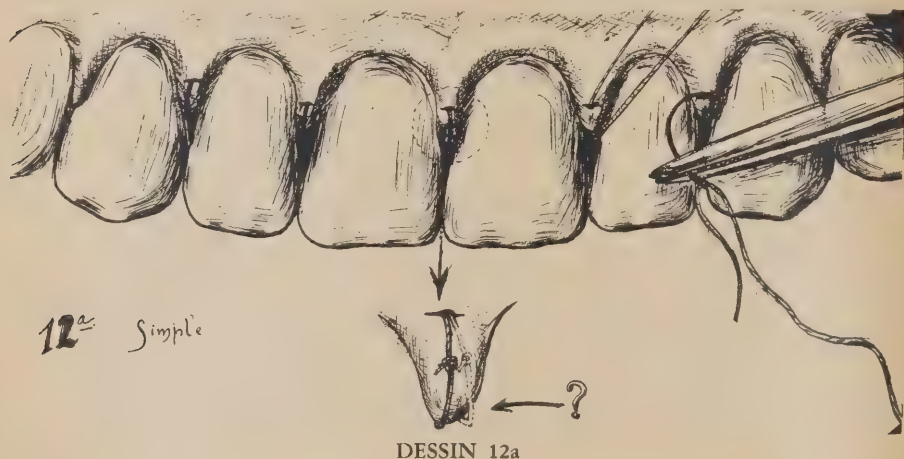
Soie spéciale "Deknatel"

Cette ligature no 00 employée depuis quelque temps en chirurgie esthétique est d'une structure extrêmement fine, stable et malléable. C'est elle qui nous a donné de meilleurs résultats au cours de nos expériences.

Suture double en forme de "U"

Dans la suture recommandée couramment par les auteurs, et qui est en principe celle pour laquelle nous venons de formuler des phases bien ordonnées à l'occasion des sutures pratiquées à la région antéro-inférieure, l'aiguille traverse une seule fois la muqueuse buccale et la muqueuse linguale, au cours de son

Pour faire face à cet inconvénient, nous recommandons une suture double en forme de "U", qui au lieu de chevaucher sur l'un des côtés de la papille interdentaire, présente un point d'arrêt, une sorte de frein du côté lingual. Comme il sera démontré plus loin, le fil traverse la muqueuse linguale et la labiale en deux fois à la partie moyenne des papilles



trajet. La ligature dans ce cas, si elle chevauche sur l'extrémité des papilles interdentaires a tendance à se placer, dans la suite, du côté mésial ou du côté distal, d'où un léger relâchement. (Dessin 12a.)

qu'elle maintient à leur base, à la manière d'une petite ceinture. La partie exposée de la ligature au côté lingual a point d'arrêt sur une petite étendue approximative de 2 millimètres. (Dessin 12b.)

Cette sorte de suture répond bien à nos besoins, parce qu'elle donne un certain degré de stabilité à la muqueuse si exposée aux mouvements de traction de la joue et de la langue. (Fig. 27a.)

Suture à partie Postérieure des Arcades

Bien que le curetage radical tend à être pratiqué de moins en moins pour cette partie de la bouche, précisément à cause des difficultés que présente l'opération de la suture à cet endroit qui est

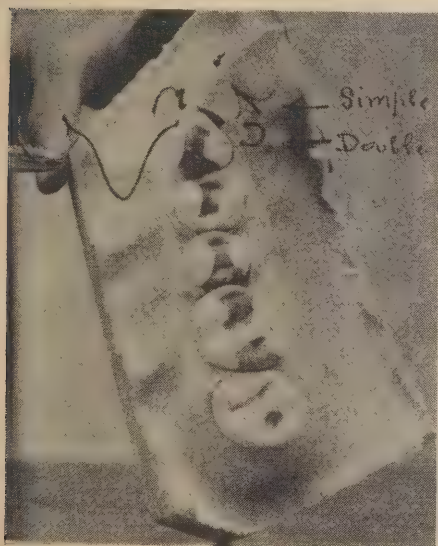


FIG. 27a

d'accès peu aisé, nous décrivons ici, à l'intention des partisans de cette méthode, les mouvements à suivre pour pratiquer la suture "double". Cependant ceux qui voudront en étendre la pratique jusqu'à la première molaire saisiront rapidement tout l'avantage qu'ils sont appelés à tirer de cette technique.

De la canine à la 3^e molaire, la suture double en "U" cette région se pratique en 7 mouvements.

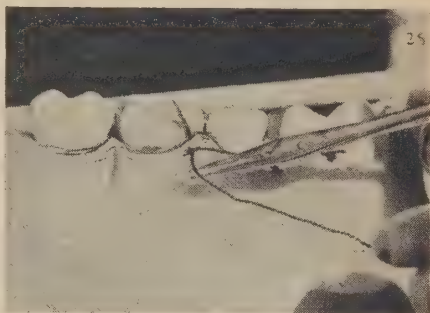


FIG. 28

1^{er} mouvement: L'aiguille en direction linguale traverse la papille buccale (Fig. 28) un peu distalement par rapport à la partie centrale de l'espace interdentaire.



FIG. 29

2^{ième} mouvement: L'aiguille toujours en direction linguale passe librement dans l'espace interdentaire (Fig. 29) car on ne doit pas forcer le fil à passer entre les dents, à la manière du "floss" dentaire.

(à suivre)



CHEZ NOUS ET AILLEURS

Mémorial du Docteur Théo. Coté

Le dévoilement de la plaque érigée à la mémoire du Docteur Théo. Coté se fera à la Faculté de Chirurgie Dentaire de l'Université de Montréal, mercredi, le 29 janvier, à quatre heures de l'après-midi.

Le Recteur, le Conseil d'Administration de l'Université, le corps professoral, les élèves et le personnel de la Faculté se grouperont dans le Hall d'entrée de la Faculté, où sera apposée cette plaque-souvenir.

Les anciens élèves du Professeur Coté sont invités à cette manifestation en l'honneur de celui, qui dépensa le meilleur de sa vie à l'enseignement dentaire.

On se souvient que cette plaque de bronze est due à la générosité de ceux, qui ont souscrit pour perpétuer la mémoire du Docteur Coté.

Cours de Perfectionnement à la Faculté

À la demande de dentistes, qui ne peuvent laisser leur cabinet totalement durant quelques jours, la Faculté de Chirurgie dentaire de l'Université de Montréal a organisé des cours partiels de perfectionnement dans les domaines suivants: Chirurgie et Anesthésie, Endodontie, Prothèse.

Ces cours auront lieu aux dates suivantes:

Chirurgie: les 11, 12, 13, 18, 19, 20 février et les 11, 12, 13, 18, 19, 20 mars (6 matinées seulement, par cours).

Endodontie: les 14, 21, 28, janvier; 25 février; 4 et 11 mars; 25 avril, 1er et 8 mai (un jour par semaine, durant 3 semaines).

Prothèse: du 27 janvier au 1er février; du 24 février au 1er mars; du 17 mars au 22 mars (matinées seulement).

De plus, des cours d'une durée plus longue, sont offerts en Chirurgie, du 21 au 26 avril (une semaine complète), en Endodontie, du 21 au 26 avril (une semaine complète, en Prothèse, du 27 janvier au 7 février, du 24 février au 7

mars, du 21 avril au 2 mai (10 journées complètes).

En Orthodontie, il y aura deux cours de deux semaines, pour les orthodontistes seulement, du 10 au 22 mars et du 7 avril au 19 avril.

Le service d'Orthodontie offre, en outre, un cours d'une année donnant droit à un diplôme de spécialiste; ce cours dure une année académique.

Tous ces cours sont subventionnés par la Fondation Kellogg.

On obtient des renseignements additionnels, en s'adressant au Docteur Ernest Charron, doyen, 2900 Boulevard Mont-Royal, - Montréal.

Nouveau Représentant de la Province de Québec à l'A.D.C.

Le Docteur Gustave Ratté, de Québec, vient d'être nommé représentant officiel de la Province de Québec au Bureau des Gouverneurs de l'Association Dentaire Canadienne, en remplacement du Docteur Armand Fortier, démissionnaire à cause de mauvaise santé.

Le Docteur Fortier, qui était vice-président de l'A.D.C., est remplacé à cette dernière fonction par le Docteur J. K. Carver, de Montréal.

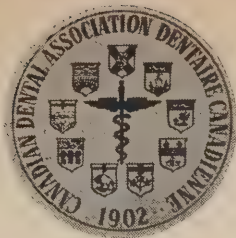
Licenciement de la Cie No 24 du Corps Dentaire Canadien

En date officielle du 15 novembre 1946, la Compagnie No 24 du Corps Dentaire Canadien disparaissait ou cessait de fonctionner.

Cette Compagnie fut celle, qui a administré les Services Dentaires de l'Armée dans la région militaire de Montréal, depuis septembre 1939.

Les quatre officiers commandants, qui se sont succédés, tour à tour, ont l'impression que les services rendus sont immenses et contribueront dans une large mesure à la campagne d'éducation dentaire dans notre province.

Tous les dentistes, qui ont servi dans le Corps Dentaire, ont bien mérité de la profession.



PAGES EDITORIALES

COMITE DE REDACTION

Président:

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D.

Assistant:

ARMAND FORTIER, D.D.S., I.D.S.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., I.D.S.

397 est Boul. S.-Joseph, Montréal

LA SOCIÉTÉ DENTAIRE DES TROIS-RIVIÈRES

par ROMEO BEAUDRY, président

C'est en 1922 que fut fondée la société Dentaire des Trois Rivières qui portait alors le nom de: L'association des Chirurgiens-Dentistes des Trois-Rivières et du district.

Trop long, le nom fut changé en 1942 et comprend tout de même comme depuis le début, tous les chirurgiens-dentistes du district électoral des Trois-Rivières au Collège des Chirurgiens-Dentistes de la province de Québec.

Le but de notre société est de promouvoir l'entente, la coopération et l'avancement de la science chez nos confrères.

Depuis quelques années, il existe un règlement qui stipule que le comité exécutif doit changer, chaque année, et chacun doit passer aux diverses fonctions à tour de rôle.

Le but, en changeant de président chaque année, est d'infiltrer du sang nouveau au sein de l'organisation.

C'est la coutume que le vice-président devienne président l'année suivante.

Ainsi chaque président a acquis assez d'expérience l'année précédente pour être laissé à sa propre initiative.

Et c'est une ambition pour chacun de faire mieux que son prédécesseur.

L'organisation varie chaque année, les activités scientifiques sont mêlées aux activités sociales.

De temps en temps, nous invitons des conférenciers de marque parmi les membres de notre profession, nous avons aussi des réunions sociales pour lesquelles nos épouses sont invitées à se joindre aux membres.

Tantôt c'est un souper d'huitres qui réunit le groupe, tantôt c'est une danse, une autre fois, c'est une partie de cabane, aux temps des sucres.

Ceci a pour but de créer une grande intimité chez les confrères, un meilleur esprit d'entente et de coopération.

Aussi comme résultat, les membres ne sont pas réduits à l'esclavage.

Nous avons réussi à fixer des heures raisonnables de travail.

Ainsi il n'y a pas de bureau les mercredi et samedi après-midi, et du bureau le soir, le lundi et vendredi seulement.

A toutes les fêtes légales, il y a chômage au bureau, et de cette façon nous pouvons vivre une vie raisonnable et agréable.

Cette année nous avons un programme assez élaboré.

L'année débute le 19 oct. par un grand parti d'huitres auquel assistent 12 dentistes sur 14, uniquement de la ville de Trois-Rivières et tous accompagnés de leurs épouses.

A cette occasion le comité exécutif se réunit pour préparer le programme de la grande réunion des dentistes de la région, qui doit avoir lieu à Drummondville le 16 novembre prochain.

On profite des circonstances pour fêter la nomination des deux nouveaux gouverneurs au Collège des Chirurgiens-Dentistes de la région des Trois-Rivières.

Et comme marque tangible d'amitié à leurs confrères aînés un souvenir sera donné à chaque confrère ayant 25 ans et plus de pratique.

A cette occasion aussi, l'on fêtera les récentes nominations de nos confrères à de hautes fonctions. Cette réunion consistera en un grand banquet pour se terminer par une danse. Ordinairement nous comptons sur la présence d'une soixantaine de confrères.

Au cours des mois à venir, 4 conférences seront données par des dentistes de marques, visite aux confrères de Louiseville, Shawinigan.

Comme vous pouvez le constater le grand désir du comité exécutif est de nous efforcer à promouvoir l'esprit de coopération dans notre profession, amener les confrères à une franche collaboration et ce, non seulement dans leurs propres intérêts, mais dans l'intérêt de la profession toute entière.

Nous parviendrons par ces moyens à nous faire mieux connaître comme corps professionnel vis-à-vis des autres professions, nous serons, plus utiles au public et notre prestige individuel en sera augmenté d'autant.

USAGE LOCAL DU SULFATHIAZOLE

On peut conclure de cette enquête que le Sulfathiazole employé localement dans les plaies ne prévient pas l'infection. Voici les raisons favorisant cette assertion:

- (1) *Les microorganismes, qui causent l'infection des plaies ne sont pas bien susceptibles aux sulfonamides.*
- (2) *Les cellules mortes et les substances étrangères, qui sont toujours présentes, plus ou moins, dans toute plaie, nuisent à l'action des sulfonamides.*
- (3) *Le sulfathiazole tend à augmenter l'hémorragie et à favoriser la formation d'hématome, facteurs, qui prédisposent à l'infection.*

Ces désavantages et son inefficacité à prévenir l'infection des plaies doivent nous faire abandonner le sulfathiazole et rechercher d'autres moyens pour diminuer la fréquence des infections des plaies chirurgicales.

O'Donnell et collaborateurs, Surgery, Gynecology and Obstetrics, 82:325, mars 1946, Journal of Oral Surgery, octobre, 1946.



The Pines

**NATIONAL
CONVENTION BY THE SEA
AT
THE PINES, DIGBY, N.S.**

DEEP SEA FISHING

GOLF

TENNIS

ARCHERY

DANCING

19 JUNE 47						
S	M	T	W	T	F	S
		24	25	26	27	

ESSAYS

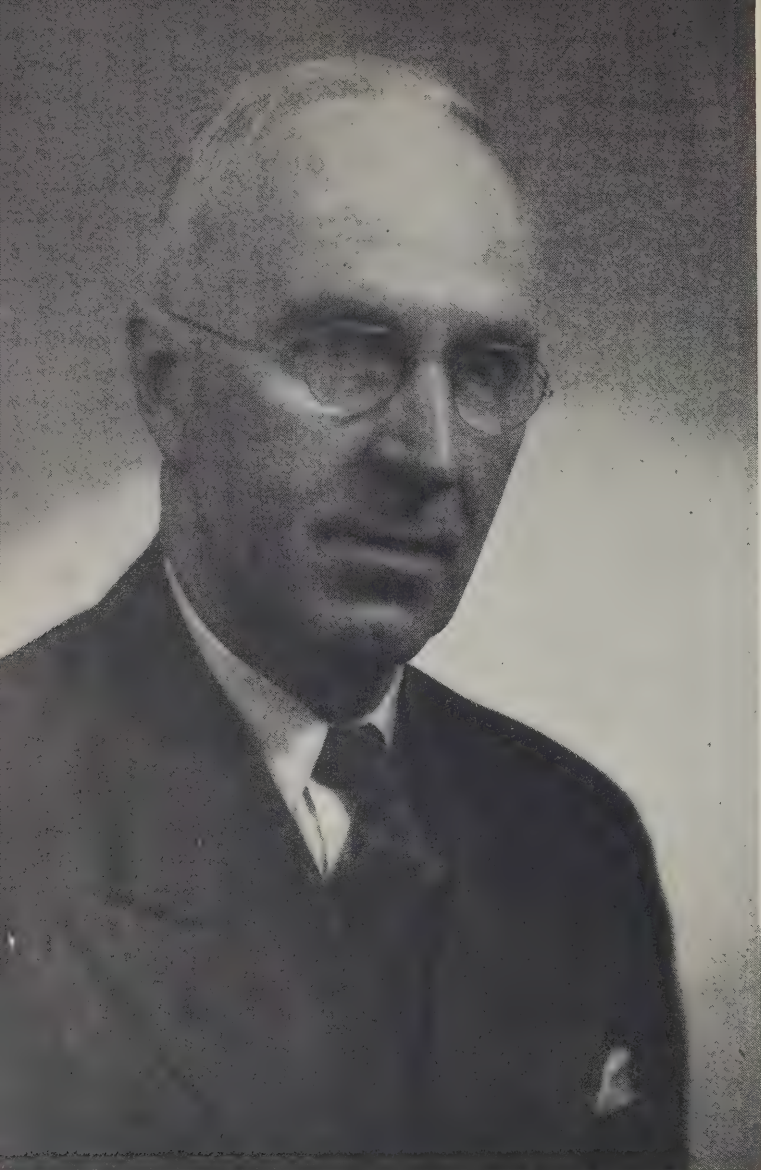
GROUP CLINICS

TABLE CLINICS

DISCUSSIONS

BUSINESS

NO RESERVATIONS GUARANTEED AFTER MARCH 1st



ARTHUR E. PROCTOR, D.D.S.

Winnipeg, Manitoba.

President of the Dominion Dental Council.

Member of Child Health Services Board.

Secretary and Clinic Chairman of the Canadian
Foundation for Preventive Dentistry.

Past President of Winnipeg Dental Society, and
Manitoba Dental Association.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, FEBRUARY, 1947

NO. 2

WHERE IS EXTRACTION AN EXPEDIENT PROCEDURE IN ORTHODONTIC TREATMENT, AND WHERE IS IT NOT ADVISABLE?

by GEORGE W. GRIEVE, D.D.S., Toronto, Ontario.

HAVING for twenty years been a persistent exponent of the principle of removing dental units in the correction of certain conditions of malocclusion, it is probably fitting that this assignment on the program has been handed to me. All in this meeting today are more or less interested in orthodontics, else you would not be here. Some of you are devoting your whole time to the correction of malocclusion, while the majority are in general practice. Since accepting the invitation to discuss before this group the important problem of extraction in orthodontic treatment I have been giving considerable thought as to how I might make my presentation interesting and helpful to both groups, and already I am fully alive to the difficulties of the task I have undertaken. Some time after I received my certificate from the Angle School of Orthodontia, in 1907, I prepared three papers especially for those in general practice. My first paper, presented before specialists, was in 1920, following which there have been over twenty others, as well as many clinics—all before societies of specialists, covering an area from San Francisco to London and Paris, so I have been somewhat worried in my effort to cover this assignment today in so far as the general practitioner is concerned.

AETIOLOGY OF MALOCCLUSION

Before we can enter into any discussion of the subject, as specifically set forth in the title of this paper, we must endeavour to show that, born of clinical experience, we now have a well-established theory of the aetiology of malocclusion. This theory is that where the normal backward growth of the jaws does not take place the teeth drift forward of their normal relation to basal bone and, in our treatment, must be moved distally. Many years ago I went on record as saying I believed that, ordinarily, teeth are not too far back in the bone in which they are placed, and I am still of that opinion.

For the first seventeen years of my practice of orthodontics I tried to carry on according to our knowledge of that period, with many more or less failures. It finally became evident that something was radically wrong, either with the theory under which we were endeavouring to analyze our cases, or in our clinical procedure. Eventually I concluded that malocclusion was the result of a forward translation of the teeth, and for a few years I tried to move them all back. I soon found that this was impracticable, if not impossible, except in those cases in which there was only slight forward displacement. About that time I came in con-

tact with Dr. J. Sim Wallace's book, "Variations in the Form of the Jaws," where I found that he held similar views. I would strongly advise those who do not possess this work to procure a copy. An American edition was published in 1927, in which, on page 63, is a picture of four mandibles, from the age of six years to adult life, which we see here now in Fig. 1—"Illustrating

THE POST-NATAL DEVELOPMENT OF THE JAWS 63

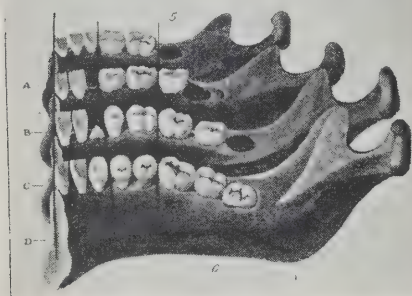


FIG. 1

Illustrating John Hunter's description of the growth of the Mandible, and exemplifying the changes which take place in the teeth at different periods.

John Hunter's Description of the Growth of the Mandible, and Exemplifying the Changes which Take Place in the Teeth at Different Periods." This picture, with its legend, was originally published in "The Natural History of the Human Teeth," by Joseph Fox, 1803. At that time Hunter stated that the six-year molars should never come to occupy any of the space originally occupied by the deciduous denture. The members of the orthodontic profession are now pretty well agreed that Hunter was right, but it required 125 years for this theorem to become established as a scientific fact. In one of my earlier papers Hunter's description of the growth of the jaws was covered in some detail; this may be found in the International Journal of Orthodontia for January, 1932. Where there is crowding or protrusion of the teeth it is usually the result of a lack of normal backward growth of the jaws. Our

highly refined food does not require the intensive mastication necessary to stimulate active bone growth.

EXTRACTION

Twenty years ago I decided that in some of these cases it was advisable, in treatment, to remove all four first premolars, and as time went on the percentage increased where we felt this procedure was indicated. For many years extraction was criticised, more particularly by graduates of the Angle School. However, this opposition has now pretty well disappeared, as indicated by excerpts from Dr. Robert H. W. Strang's discussion⁸ of one of my papers, read before the New York Society of Orthodontics in 1943, as follows:

"In the old days of our specialty, when two men disagreed it seemed to be the end of all friendship. When Dr. Grieve first came out with his ideas on forward translation, he and I did not agree as to the method of treatment. I am, and was, and I think perhaps always will be, fundamentally, an idealist. I looked at the problem as one of getting the teeth into proper relationship to basal bone by the preservation of a full complement of dental units, and I discussed that principle with Dr. Grieve for years. Dr. Grieve went ahead with the extraction. Then Dr. Tweed came along with proof that Dr. Grieve was on the right track, and I want to make acknowledgment at this time that Dr. Grieve and Dr. Tweed, to my mind, have pioneered a principle that we must accept, because of the fact that we are dealing with a condition within the organism that we cannot overcome by our mechanical treatment. Dr. Grieve, you have won the battle, and I congratulate you, and stand here as the vanquished."

Further, in the same discussion, Strang says: "I think Dr. Tweed and Dr. Grieve have brought to the specialty the most hopeful theory, the most hopeful philosophy, that we have had in years."

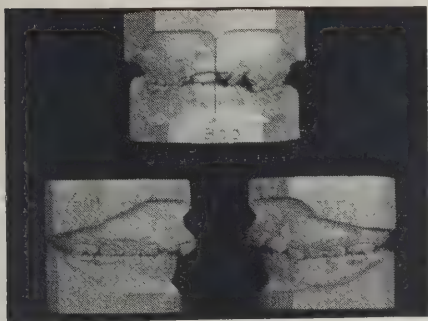


FIG. 2

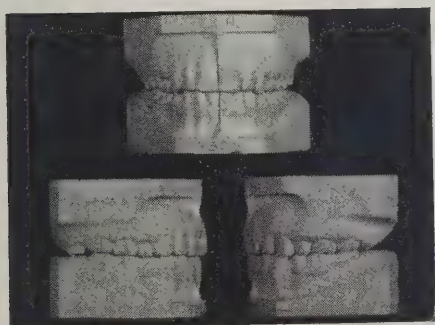


FIG. 3



FIG. 4

Fig. 2 shows the original casts of a little girl seven years of age, in which there was a badly rotated maxillary left central incisor and a decided maxillary protrusion, complicated by three supernumeraries—one erupted between the maxillary centrals and two small ones erupted in the palate. There was also an under-developed mandible. The erupted supernumery was removed at once, but the grandfather of the child,

a noted surgeon, would not agree to the removal of the unerupted buds lingual to the centrals. At that time a little work was done to expand the dental arches and rotate the left incisor. The case was then allowed to rest for about five years when we were permitted to have the unerupted supernumery teeth removed. All first premolars were removed and treatment commenced. Fig. 3 shows the final casts and Fig. 4 the original and final profile photos. We are hoping to get this patient in soon to investigate mandibular third molars; she has been in war work overseas for several years. Here is a case where removal of four premolars was definitely indicated. This case probably belonged in Class II (Angle).

PREMATURE LOSS OF DECIDUOUS TEETH

The next case which we shall consider is one of major importance for the general practitioner, whether he has ever done any orthodontic work or not. It presents an excellent illustration of the forward drift of teeth as a result of premature loss of deciduous molars and canines, as well as six-year molars in some instances, where space maintainers have not been placed to hold open the spaces for the developing permanent teeth. Fig. 5 shows the casts of this case, a boy 11 years of age, in which all first deciduous molars and canines were lost prematurely, and apparently no effort had been made to prevent the forward displacement of the second deciduous and six-year molars. On the left side—both arches—there is only about one-third the required space left; on the right side of the maxillary arch the same, for the right lateral was congenitally missing; the mandibular right side not much better, for the incisors were off centre and had to be moved to the right. Fig. 6 presents the occlusal view of both original and final casts. The maxillary right lateral was missing, and to balance the denture the left lateral was removed. The teeth are very large, and the amount of space lost was so

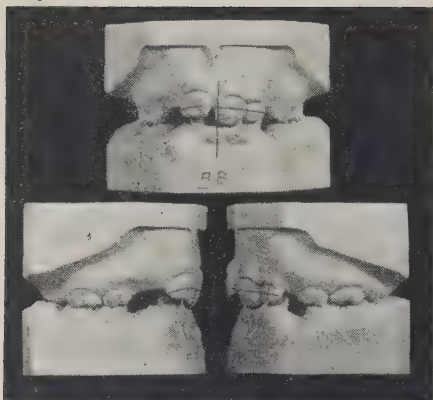


FIG. 5

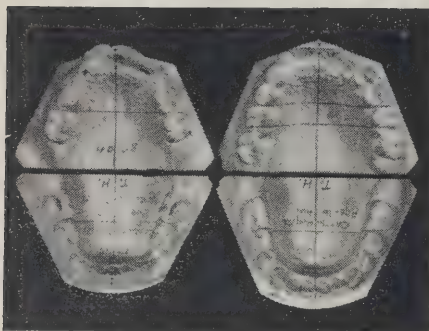


FIG. 6

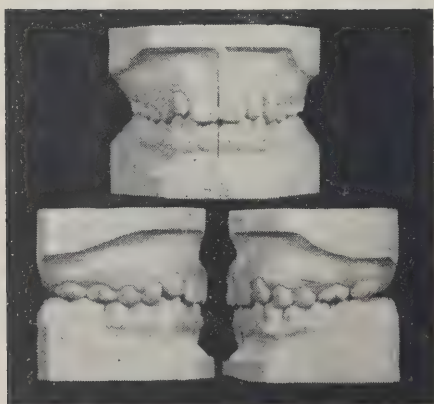


FIG. 7

great it was found necessary to extract both mandibular second molars. Fig. 7 shows the final casts—the third molars yet to erupt. No dentist is rendering

adequate service to his young patients who allows such a condition to develop. I would earnestly appeal to all general practitioners to give careful attention to this very important problem in children's work.

CHILDREN'S DENTISTRY

Children's dentistry is now very definitely in the limelight, the incentive having been supplied by the Canadian Dental Hygiene Council, with financial assistance from the Canadian and Provincial Dental Associations, and the co-operation of the Universities across Canada. A two-day clinic has been conducted in many cities under the leadership of Dr. Stewart A. MacGregor, head of the Department of Children's Dentistry, University of Toronto. Doctor MacGregor is very enthusiastic about the problem of intercepting malocclusion, and presents sound advice and some details in the construction and placing of space maintainers. The July, 1945, issue of the *Journal of the Canadian Dental Association* carries an article by Doctor MacGregor, on "Interception of Malocclusion," which is well worth another perusal by those interested. On account of its importance I cannot refrain from quoting a paragraph from this paper as follows: "Many of us have taken an apathetic attitude towards this phase of dentistry, admitting no responsibility on our own part, but shifting the entire problem to the shoulders of the orthodontist. This, to my mind, is a great tragedy, for in the vast majority of cases the orthodontist does not see the child until the damage is done and an extensive treatment is necessary."

Doctor MacGregor is also putting on this work in the Group Clinics at this meeting, and I would suggest that his clinic be your first choice.

DEPRESSED MOLARS

In Fig. 8, a girl about 12 years of age, we see a condition, occasionally met with, in which the deciduous molars have not erupted to the plane of occlusion—commonly called "depressed

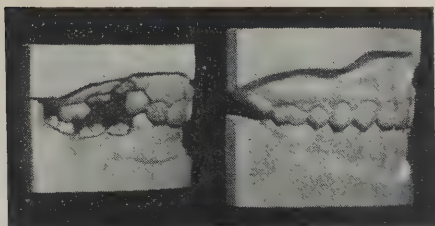


FIG. 8

molars." The casts on the left are the originals, and those on the right are study casts made some time later, of which the records, unfortunately, are not available. This is quite an extreme case of this type, the occlusal surfaces of the deciduous molars, on both sides, being apart over half an inch when the jaws are closed. The alveolar bone in the region of the deciduous molars is also lacking in vertical growth. These areas have not been "depressed" but, for some reason I believe still unknown, the teeth apparently become ankylosed, and the vertical growth ceases in this region. Where such interference becomes evident the deciduous molars should at once be removed to permit the premolars to erupt, and a space maintainer should be inserted to prevent the first permanent molars from tipping forward, which has happened here to all four. This case was treated over twenty years ago, and we have no records except the original casts and study casts made some time after we had removed the arch wires for a period to await development. When the study casts were made we wanted to go on to completion of the treatment as the left maxillary first premolar was not quite in place, but the mother thought the teeth were good enough, and we were not permitted to finish the work. Note that in the casts on the right the teeth are in good occlusion and the gingival margin is normal. The left side is just as good, except for the first premolar. It was not necessary, in this case, to remove any permanent teeth.

I believe that, in the majority of children, the first deciduous molars are

shed about the time the patient is ten years of age, or earlier, and the second ones about a year later. However, there is considerable variation in the ages at which these teeth drop out and the premolars erupt.

The next case which we shall consider—a girl 13 years of age—is an extreme one in Angle's Class III. The mandible is quite prominent and this dental arch too wide, particularly at the root ends—all mandibular teeth being tipped lingually and the maxillary teeth in lingual occlusion. Fig. 9 shows the buccal view of the original and final casts. The extreme lack of forward growth of the maxillary arch may be noted by the mesio-distal relationship of the maxillary canine with the mandibular teeth—between the second premolar and first permanent molar. The tongue was very large and rested habitually in the floor of the mouth, this factor being responsible for the prominence, labially and buccally, of the root ends of all the mandibular teeth. The lingual plate of bone at the gingival border of the front six or eight mandibular teeth was very thin, so, for this reason, coupled with the prominence of the lower border of the mandible, as seen in Fig. 10, extraction was not advisable. In treatment every effort was made to stimulate forward growth and development of the maxillae, with considerable success. (Fig. 10A.) All third molars and the right maxillary second premolar, were congenitally missing. The space for the premolar had entirely closed; this was opened and a bridge placed.

Extraction, of certain teeth has its place in treatment of malocclusion, and in my practice the percentage of these cases has risen as time went on. Some of the few men who still oppose this procedure satirically call it a "short cut". It can be so, if the treatment is not properly carried out, but it requires more time to correct a case satisfactorily than if there are no teeth removed; so, when well done, it is not a "short cut". However, much harm has resulted from indiscriminate removal of teeth

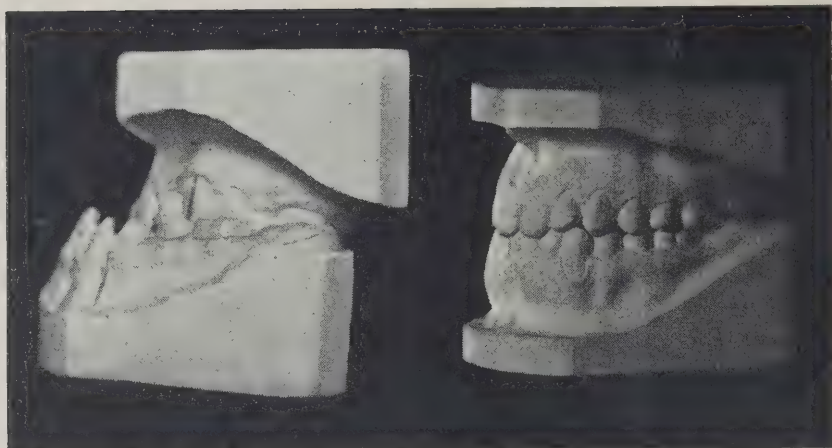


FIG. 9



FIG. 10

in an effort to improve occlusion; this is a "short cut", and requires a broad knowledge of orthodontics to carry out successfully. It is not possible to formulate a rule for guidance in this problem, so my advice to the general practitioner would be, where there is any doubt, to send good casts and radiograms to an orthodontist of wide experience for counsel.

REFERENCES

1. Wallace, J. Sim: *Variations in the Form of the Jaws*, New York, 1927, William Wood & Company.



FIG. 10A

2. Grieve, George W.: *Some Theories Obstructing the Progress of the Science of Orthodontia*, *Int. Jour. Ortho.*, Jan., 1932.
3. Strang, R. H. W.: *Discussion of Dr. Grieve's Paper*, *Am. Jour. Ortho. and Oral Surg.*, April, 1944.
- 2 Bloor Street East.

SHOULD WE GIVE MORE SERIOUS THOUGHT TO SPACE MAINTENANCE?

by STEWART A. MacGREGOR, D.D.S., Toronto, Ontario.

A GREAT deal has been written on the importance of the deciduous teeth in relation to both the normal growth and development of jaws and the proper alignment of teeth in the permanent dentition. We have even gone so far as to call them foundation teeth. We have educated the laity along this trend of thought yet I have heard leaders of our profession too often make the statement that when we remove these so-called foundation teeth, space maintainers are seldom necessary. Is it not high time that we became consistent in our teaching? We can stop calling them foundation teeth, extract them when it is necessary without replacing them with space maintainers, letting the child and parents suffer the consequences, or we can continue to call them foundation teeth and when they are lost have some basis for recommending to the parent that space maintainers are either indicated or not indicated. But let us do one or the other and not confuse the laity. Too often I have heard dentists, who should know better say, "Leave them alone and watch them." This 'watch them' attitude reminds me of a story I heard as a boy. A farmer asked the village drunk to watch his horses while he went in to the corner store. When he came out the horses were gone. He remarked to his inebriated friend, "I thought I asked you to watch my horses." The drunk's reply was, "I did until they went around the corner." For me this illustrates how much is gained by watching a space in the mouth. The space is usually watched until it is closed and the damage is done.

Considerable research has been carried on with reference to the percentages of spaces closed when the first and second deciduous molars

are lost prematurely. Dr. John C. Brauer, for instance, points out the following:³

1. Approximately one-third of the first primary molars removed early or prematurely will lead to closure of space and malocclusion.
2. At least one out of every two of the second primary molars removed early or prematurely will result in closure of space and malocclusion.
3. Approximately four out of five first bicuspid will erupt in fair position when both the first and second primary molars are extracted prematurely at the same time in the same segment. However, approximately one-half of the second bicuspid will not be able to assume their intended position.
4. The practitioner thinking only in terms of closure of space (first and second primary molar areas), and not in terms of function and extrusion of the opposite tooth, may resort to a period of observation to note the tendency to collapse.
5. In cases where the arch form and occlusal relationship is acceptable and one anticipates at least three months or more time before the bicuspid or bicuspid will erupt, and where there is some concern about the possible extrusion of the opposite tooth or teeth and function in the area, the author advises a space maintainer in either the first or second primary molar area.

Such observations are most valuable but the thought that is recurrently aroused in my mind on reading this and numerous other surveys is: just how are we to predict the spaces that close and the spaces that do not close? If we resort to the 'watch method' the child is not liable to be seen as often as is necessary and when observed

again, the molar has moved to such an extent that at least one of the bicuspid will erupt in malocclusion.

In my practice, I attempt to classify space maintenance from the standpoint of the eruption of the permanent teeth on either side of the space along with the time of eruption of the teeth erupting into the space. I will not attempt in this article to review either this classification or the construction technique used, but will refer my readers to an article, 'Interception of Malocclusion' published in the *Journal of the Canadian Dental Association*, July 1945, for this information. This classification is merely a guide and is based only on clinical observations. No matter what method is used in determining when, where and how to construct a space maintainer, one must realize that because of the wide range of conditions existing in different children with respect to growth and development as well as eruption of teeth, one must expect many pitfalls. My object in writing this paper is to point out that space maintenance is a phase of work that should not be treated lightly.

No man has done more for the subject of space maintenance than Dr. R. C. Willett. I commend his technique for the construction of a space maintainer in the case of loss of the second deciduous molar before the eruption of the six year molar. I have followed Dr. Willett's technique religiously for years and, with the exception of one case, all have been successful. I would like to cite this history merely to emphasize that even with the utmost care in technique, growth and development of the child may change the whole picture.

Murray G., age six years—Fig. 1, February 1939, lost both of his lower second deciduous molars. A Willett space maintainer was constructed on each side. The right angle arm of the distal end of the maintainer extended down into the distal socket of the second deciduous molar. When the

six year molar erupted into place, the right-angle arm was ground off leaving just enough to contact the



FIG. 1

six year molar maintaining it in an upright position. The parents were given quite a pep talk on the value of space maintenance and charged \$20.00 for each. These remained in position until the first deciduous molars, the abutment teeth were lost.

Fig. 2, September 1943, shows one space maintainer still in position but with practically no root on the first deciduous molar. One first deciduous molar was lost at 10½ years and the other at 10 years and 7 months. The mother called me and I explained that no further treatment was neces-

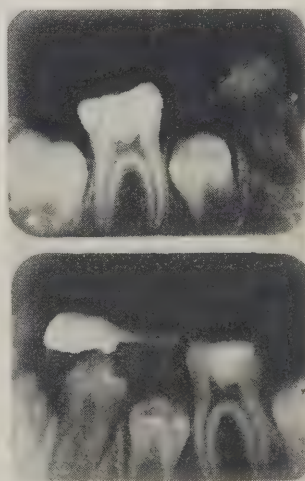


FIG. 2

sary. In making such a statement, I was taking only the chronological age of the child as my guide. The child returned in three months and I found that the twelve year molars

were erupting before the second bicuspid.

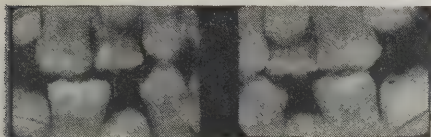


FIG. 3

Fig. 3 shows the condition on March, 1944. The twelve year molars pushed the six year molars forward causing the second bicuspid to be impacted.



FIG. 4

Fig. 4 shows the condition wherein twelve year molars have completely erupted and Fig. 5 shows model of lower arch in which the second bicuspid are erupted lingually. I had to telephone the mother and explain that something had happened which I had not foreseen. The parents nearly lost

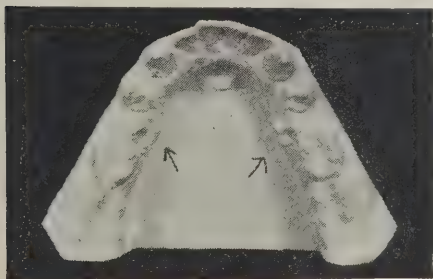


FIG. 5

confidence in my judgment, and who could blame them. But when it was fully explained and when a good

record over the period of years I had worked on the child was recalled, they understood that there must always be a first time and I was exonerated.

This experience was a great lesson to me and now whenever I construct such a space maintainer, I always explain to the parents that when the first deciduous molar is lost that that is the tooth to which the space maintainer is attached and that another type of space maintainer may have to be constructed particularly if the twelve year molar is going to erupt before the second bicuspid. When antero posterior growth is lacking, the twelve year molar is even more liable to close the space and sometimes even in a matter of weeks.

There are many such possibilities of error in this field of space maintenance and it is up to all of us to adopt a more careful attitude in diagnosing when and where to construct space maintainers. Let us remember the old adage, 'out of sight, out of mind' and refrain from using the 'watch the space' method. I sometimes wonder if this has just been a way out because we have not had a satisfactory technique for the construction of space maintainers and more particularly because such work has to be done on a young child.

BIBLIOGRAPHY

- (1) Texas Dental Journal—August 1940, pages 282-295. 'The Major Requirements of children's Dentistry.' by: Dr. R. C. Willett, D.M.D.F.A.C.D., Peoria, Ill.
- (2) The Dental Digest—Volume xxxvi, May 1930, Number 5. 'Interception of Malocclusion.' by: Dr. R. C. Willett, D.M.D.-F.A.C.D., Peoria, Ill.
- (3) Journal of Dentistry for Children—Volume vii, 1941 Fourth Quarter. 'A Report of 113 Early or Premature Extractions of Primary Molars and the Incidence of Closure of Space.' by: Dr. John C. Brauer, D.D.S., M.Sc.

"All good things will come to the other fellow if you only sit down and wait".

"YOUR PRACTICE AND YOURSELF"*

by MAXWELL H. TOKER, D.D.S., Montreal, Quebec.

IN undertaking this group study of Office Procedure and Economics let us consider the subject in its broader aspects as related to the whole practice of Dentistry and to our personal welfare. It should be of special interest to the younger men and to those of you who have recently resumed private practice after the years sacrificed in war services.

To begin with, let us bear in mind this fact of emphatic importance. Dentistry, our chosen profession, is the hardest kind of work physically and mentally. It's a constant strain on your eyes, your hands, your feet and your back; besides subjecting you to considerable nervous strain. Dentistry demands a greater variety of skills than almost any other profession. And to give of your best it is necessary that you be at your best. You can't be proficient if your health is below par. You can't keep your health if you over-expend your energies. Nor can you maintain interest in your work if physically worn or mentally troubled or when beset by economic difficulties.

It is of vital concern therefore, in the interest of our patients and for our own well being, as well as for the comfort and security of our families, that we should seek to regulate our practices and ourselves to greatest advantage. The so called "Economics" or "Business" aspect of Dentistry may well be considered the hub of dental practice for on its smooth management will depend in large degree the professional and operative success of the dentist. George Wood Clapp has defined what he considers Dentistry's main divisions as:—

1. The Science or Professional side—that which concerns the aetiology, the diagnosis, the prescription and prevention of a given pathosis. 2. Dental Craftsmanship—the mechanical or manual part of dental practice. 3. The

Business or Economic division. It is this latter which enables the dentist to practise to the best advantage in the professional and technical applications of Dentistry. Successful management makes it possible for a man to buy the best of equipment and instruments; to take time off for study, dental meetings and post graduate classes; to take regular vacations, to keep nerves and body fit; and to live a happier and more useful existence.

In viewing the whole subject of Dental Office Procedure and Economics I would like to consider its main aspects as follows:—

1. Organization of office and equipment.
2. Reception and Examination of patients. Presentation.
3. Business conduct of dental office. Records.
4. Building and retaining a practice.
5. The dental assistant: her training and office routine.
6. Efficiency of procedure; conservation of time and energy.
7. Keeping abreast of dental science and practice.
8. Health, recreation and community interest.
9. Planning for security.
10. The professional concept.

Though much time could be taken up considering each phase of the problem, it will be sufficient for our purpose to touch on some of the highlights only.

ORGANIZATION OF OFFICE AND EQUIPMENT

The general arrangement of your dental office depends to some degree on the available space, the general environment and the type of clientele to be served. As the apparel oft proclaims the man, so too does the dental office

* Presented before the Mount Royal Dental Society, Rehabilitation Group, March, 1946.

reflect the personality and efficiency of the dentist. It is well to be critical of your office arrangement and to appraise it at frequent intervals. When you have occasion to visit other dental offices contrast them with your own. As you step into your office tomorrow morning look about you. Is everything clean and orderly? Challenge everything you see for its right to belong there. Is the office cluttered up with unused equipment? Is there anything needless? Could some of your instruments or equipment be better placed?

Be critical, too, of your reception room, its furnishings and reading matter. It goes without saying that both should be clean and up to date. Walls should be repainted or washed down at regular intervals. Carpets must be cleaned periodically. Your reception room should help to create a favourable impression of you and your office in the mind of the patient and the casual visitor.

The arrangement of the business office, desk, files, etc. are all important in the efficient conduct of your practice. But it is in the operating room itself where time and energy can best be conserved. A little thought given to the layout of instruments, medicaments and materials will avoid much waste motion. Take special note of your lighting. Your office and particularly the operative field should have adequate lighting equipment. The best is none too good.

RECEPTION AND EXAMINATION OF PATIENT

Undoubtedly the most critical visit of a new patient is the first. Frequently it is pain or distress that has brought her to your office. The manner of reception will leave an indelible effect on her. And even before her arrival at your office, her telephone contact, usually through your assistant will have made the first impression. Courtesy and professional consideration should be the order of the day. Somehow, despite a busy schedule, the

suffering patient should be relieved within a matter of hours.

When the patient has been seated in your chair, your first procedure should be to get the original complaint and then proceed from that point on. By careful observation you gain much valuable information of the patient's mentality, nervous disposition and even economic status, as well as her dental condition. Aside from the relief of pain and taking any necessary radiograms, it is usually unwise to proceed further at the first sitting.

In making a general examination of the mouth it is good procedure to give the patient a prophylaxis first and take all x-rays advisable. Interproximal films are indispensable and should be routine use for young patients. In complicated cases the use of study models will simplify your planning. The examination chart itself is your blueprint of each patient's mouth and should record all facts of importance.

It is at this stage that the professional knowledge and judgment of the dentist are to the fore. A thorough dental examination involves the "science" of dentistry. It concerns the aetiology of dental disease, the diagnosis, the prognosis and the prescription or planned treatment of the case. Care in recording all data of interest can avoid many pitfalls in treatment.

When all available information is at hand you are prepared, if necessary, to give the patient an estimate of the cost involved. With few exceptions, new patients or those for whom extensive work is planned should receive estimates. Rarely should this be given before the second or third sitting. By then your new patient will have had time to gain confidence in you, your judgment and ability and will be prepared to accept your recommendations.

The practice in some offices of using an array of prepared models and charts is for many reasons hardly commendable. Your best means of presentation is the use of the patient's own x-rays and models. Patients are easily con-

fused by too much talk. They look to the dentist to assume the responsibility of giving them the best service of which he is capable and considering their needs and means.

BUSINESS CONDUCT OF DENTAL OFFICE RECORDS

No matter how good a dentist's technical knowledge and skill may be, he must know how to adequately value his services or he will soon meet with discouragement. It should be recognized that he is justly entitled to a fair and equitable fee for every service which he renders. This applies to consultations, clinical examinations, relief of toothache and denture adjustments, as well as other services. The charge for services should have some definite basis of value and not be merely guessed at or set by some arbitrary standard. A simple and orderly system of records will help to establish a fair fee schedule and enable the dentist to make steady progress. Many men are inclined to disregard the changing economic trend and do not fully realize to what extent their incomes are affected by increased operating costs, higher living costs and income taxes.

It is the part of wisdom therefore to take stock of one's practice and self on occasion. The beginning of a new year is an ideal period, for you then have the facts and figures of the previous year to guide you, providing your records offer the desired information. You are no doubt all familiar with the general principles of setting up fees for your services. If, due to war services or recent graduation you have nothing definite to go by, then use approximate figures. Basically the time of each operation and the proportional value of your operating time should determine the charge for various services, not forgetting certain other considerations. But it is important that YOU should KNOW your OWN basic facts and figures. These may change from year to year due to varying circumstances and general economic conditions.

Records should be simple yet adequate. I consider as indispensable the use of a Day sheet to record the day's services for each patient, fees charged, operating time and cash receipts. These individual entries are then posted to the respective patients' service records. The Day sheet totals are entered in monthly summary records. I use a separate examination chart as well as the combined service and account record. All receipts and expenses are entered in a loose leaf ledger; miscellaneous expenditures are recorded in a petty cash book. My own preference is for a loose leaf account book carrying patients' accounts and other records. These sheets are easy to use and simple to file. But whatever system you happen to favour be sure that the record is complete and informative.

BUILDING AND RETAINING A PRACTICE

Without doubt the greatest asset of a dental practice is the goodwill of satisfied patients. The normal dental practice requires constant care in maintaining this goodwill in order to retain old patients and attract new ones. The ability to render good dental service and a reputation for fair dealing are first in the minds of patients who recommend you to their friends. Personality, cleanliness, office environment, efficiency and other influences all have their effect in appraisal of the dentist.

In my experience there is nothing that earns the respect and gratitude of the patient so much as the interest taken in the state of health of their own mouths and of their children. They want to know the truth about their teeth, the periodontal tissues and the treatment required. They appreciate your demonstration of brushing technique. All too often the response is "Why, Doctor, no one has told me this before". It is apparent that too many men, either through lack of time or insufficient interest overlook incipient disease of teeth and gums that could be readily checked and treated at an early stage.

Remember too that "patients are people" and are most responsive to the polite personal interest which you take in their general health and the things that interest themselves. Sending courtesy notes to people who have referred patients to you and periodical recalls for examination and prophylaxis are both evidence of your interest. Recalls are most effective through the telephone by the assistant.

The dentist who is building a new practice or who seeks to renew his war interrupted clientele would do well to follow the established principles of practice building. But best of all he should take a sincere interest in the people he meets daily and in the community life about him.

THE DENTAL ASSISTANT TRAINING AND OFFICE ROUTINE

It is readily acknowledged that the efficient conduct of a dental office today rests largely in the hands of the dental assistant. Her schedule may differ in various offices but in general her duties run to almost everything there is to be done aside from operating at the chair. She is the dentist's real time saver, the office diplomat and efficiency engineer. But the ideal assistant is rare indeed and so you must set about to train the girl you have chosen for the position. Chance and the wisdom of your selection plus the method of your training will determine the result.

At the outset it is necessary to outline and explain the services expected of her. As a constant reminder, I have posted in a convenient corner of the office a list of her duties and a daily schedule of office routine. In addition she is given a list of requirements for various operations. There is also a list showing the name, position and use of each instrument in the working cabinet. Of special interest to her is the folder containing various magazine articles and other items helpful to her and at least one good text book pertaining to her work. Thus she is given every opportunity to make the most of her

abilities and to become proficient in her duties.

EFFICIENCY OF PROCEDURE

Now what of the dentist himself—our primary concern? Let me again repeat that Dentistry is indeed an arduous profession. And in fairness to our patients and ourselves we must strive to make the most of our time and energy. There are many ways in which operating time may be conserved and increased production attained. A well planned office, modern equipment and an efficient assistant, as previously stated, are of primary importance but by studied effort and method you can further improve and speed up your work. Well oiled equipment and handpieces, sharp burs and instruments are all indispensable. Fifteen minutes a week to sharpen operating instruments will save you hours of work and get it done much better. See that your mouth mirrors are always clear and unscratched.

Much time can be saved when the patient has been seated in the chair by having all necessary records and x-rays at hand. In my office these are conveniently placed where I can see them while I am drying my hands and by the time I step to the chair my plan of procedure as well as any other details are clear in my mind. Aside from the usual brief greeting further conversation should be confined to the work in hand. As to the speed of the operation itself, that varies with individuals and is related to the general tempo of our physical makeup. Your movements may be unhurried yet precise. Your assistant, too, by anticipating your needs can save much valuable time.

Having planned the course of treatment, the aim should be to carry your program into effect as promptly as circumstances will permit. Do something concrete, if possible, at every sitting. By making a progressive entry on the patient's service chart of the work done each day you will have a more informative record to go by and

be less liable to slip up on dressings, temporary fillings, etc. Most of us have found that when seeing too many people a day we waste more time and accomplish less. Naturally the daily number of patients must vary, depending on the operator himself, his office organization and other factors. But as a rule you can accomplish as much in a half hour sitting as in three fifteen minute sessions. Shorter appointments stretch out the time and the number of office visits necessary to complete each patient's service. The man who follows this method may be booked farther ahead but is constantly striving to "catch up". Now and then the dentist who finds himself crowded for time is apt to just "go through the motions" and gets little done. As in business so with dentists a more rapid turnover is desirable. You can serve more patients more efficiently that way.

KEEPING ABREAST OF DENTISTRY

It is undeniable that there is no substitute for knowledge and skill in dentistry. The old "Dental Cosmos", you may recall, carried on its front cover the slogan "Observe, Compare, Reflect, Record". It is well to remember this when reading your dental periodicals or attending clinics and lectures. Yet all too often your dental magazines pile up on your desk only to be skipped through hastily at some odd moment. Stacks of magazines are of little use but if you will clip each article of interest and file in properly indexed folders you will have the information you desire readily at hand. This is a method which I have followed for many years and it has proven its worth.

It is my considered opinion that many men fail to measure up to their opportunities because they have lost sight of dentistry as a health profession and unduly stress the mechanical angle. Crowns, bridges, inlays and dentures are their meat. Proof of this is the interest shown in practical clinics at society meetings and conventions whereas the basic sciences such as

histology, physiology, pathology, etc. are neglected. The basis of all dental procedures is the protection and treatment of the pulp and the periodontal tissues. Only by a thorough understanding and interest in this phase of Dentistry can we attain proper balance in dental diagnosis and procedure.

HEALTH AND RECREATION

The well regulated dental practice should allow time not only for study and clinic attendance but for recreation and outside activities as well.

Our greatest economic asset is good health. It is a wasting and irreplaceable asset and should be conserved day by day. You are all familiar with the rules for maintaining good health; correct posture, care of your eyes, etc. The thing to do then is to set a program and follow it rigidly. Some form of physical activity should be your rule according to age and need. A daily walk should be a part of the program. Periodical vacations are necessary and beneficial. Social contacts and an enlightened interest in communal affairs are a further aid in keeping a sound mental and physical balance.

PLANNING FOR SECURITY

Dentistry as you and I practice it is not an easy road to riches, but we owe it to ourselves and our families to attain some proper measure of security. Your best course is to seek competent advice; to set for yourself an objective in savings and security and then strive for that goal. Without doubt life insurance is the best foundation for any plan, giving immediate protection and long term savings. For future retirement income there appears to be no better return offered than that of Canadian Government Annuities. Although limited in amount, the rates are quite liberal as all operating expenses are borne by the government and monies paid in bear interest at 4% compounded annually. Contrasted with the shrinking yield on all forms of securities and

high grade bond yields of less than 3% the advantage of these annuities are obvious. Under present conditions particularly, there is another form of investment, that of home ownership, which has many advantages. As regards other means of investing your hard earned money, including common stocks and other speculations—these require knowledge and experience and should be undertaken with much caution.

THE PROFESSIONAL CONCEPT

Success in Dentistry is not something that can be easily defined. It may vary according to individual conception. But certain it is that no man can be completely successful in a profession who has not learned to love his work and to think well of it. A man's profession is his best means of self expression.

Dentistry offers only moderate means of financial gain but there is no limit to the satisfaction and the pride of achievement which accrue from its faithful followers. Let us bear in mind the words of Oliver Wendel Holmes:—

"The Dental Profession has established and prolonged the reign of beauty. It has added to the charm of social intercourse. It has lent perfection to the strains of eloquence, and has taken from old age its most unwelcome feature."

We who have chosen the path of Dentistry as a way of life bear the double obligation of sharing in the good repute and progress of our profession as well as in providing for our personal welfare. It is a challenge to our intelligence, our loyalties and determination to succeed.

4573 Sherbrooke Street West.

About half of the dentists in the U.S.A. employ assistants of one kind or another; only an exceptional few know how to use them effectively. Those who do, not only increase their output of dental services markedly, but they conserve their energy so that technical skills are as keen for the last operation of the day as for the first. Further, their operative field is kept clear and their instrumentarium is made highly accessible. The teamwork observed is comparable to that of efficient surgical teams. They not only operate in a pleasant environment, but they enhance that environment with professional dignity.

—John W. Knutson, Senior Dental Surgeon, U.S. Public Health Service, in N.-West Dent.

The great man is he who, in the midst of the crowd, keeps with perfect sweetness the independence and serenity of solitude.—Emerson.

PERSONAL EXPERIENCE

One of my good patients telephoned that she had been eating liquorice and pulled out one of my inlays. I was a little surprised at this but had her come in and sure enough she had a gold inlay carefully wrapped in a paper. I looked at the inlay suspiciously as I did not recognize the carving. A very thorough examination of her mouth revealed that all her inlays were in place. Question—How did the inlay get in the liquorice?

VICTOR H. LARGE, D.D.S.,
Toronto, Ontario.

THE TIME OF YOUR LIFE

by RALPH R. DALGLEISH, D.D.S., Sydney, Nova Scotia.

NEVER has time been more important to our profession than during these last war years. Those of us who were left in civilian practice were forced to devise new ways and means for its conservation. While this situation may never occur again, it might be well to record some things we have learned so that returning personnel and new practitioners may benefit.

Some of us have learned the hard way that long vacations are a necessity, and our own personal ambition is to emulate whoever it was who stated that he could not do a year's work in twelve months but could accomplish it in ten.

While local conditions govern all practices, all other things being equal, dental patients do like to be served on time, and by appointment. They like to feel that in case of emergency they can be seen quickly, and that there is time available when they can see their dentist for a moment. They like to come at regular intervals, and do not like to have dentistry done in summer, or after hours, any more than we do. They like to feel that their dentist doesn't overwork, takes plenty of vacation to keep healthy, and takes time off for post-graduate work and attending dental meetings. If they believe and like these things, as they surely do, why in the world shouldn't we run our practices accordingly, when all this adds up to the ultimate happiness in dental practice?

The basis of the proper use of time in dental practice is punctuality, and far up the ladder of importance is a recall system with which we shall deal later. As we cannot complete a successful year without much thought to the time of the day, the week, and the month, let us consider each in order.

Unfortunately, to get our story

across we can only speak of our own experiences.

THE DAY

At what hour the day is started, when we lunch, when we rest, when we stop, is a matter controlled by personal preferences and local conditions; but we must do these things with some regularity, and the patients should understand this. The idea of an emergency hour each day is not new, but the war brought it into popularity. The difficulty was not alone to find time for emergencies but to find time to do a lot of little things for many people without ruining the day's routine. Our greatest accomplishment was to start a "drop in" hour at ten-thirty and three-thirty. This move was particularly popular with the patients. Daily at these times we keep a half hour for odd jobs like a single x-ray, relief of tooth ache, an adjustment, a treatment, to "look at something," check a shade, and numerous time consuming jobs for which you do not want to save many minutes. It is well to tell each patient to come promptly at ten-thirty or three-thirty, and take them in the order in which they arrive. They soon catch on to the system and appreciate "first come first served," and all come early, so a glance into the reception room usually shows just what is ahead. Of course we keep a memo of who is expected. To make this all-successful we eliminated the practice of seeing people casually, except at these hours, and so the rest of the day was left for full, uninterrupted, appointments. This gives a chance for a cup of tea or coffee and perhaps a breather. We found it easier to handle the inevitable emergency such as an extraction, by shortening our very long lunch hour, before or after, or having the patient come just before we planned to close,

when often we could be ready a bit early. Staggered lunch hours helped somewhat, the assistant staying to clear things away, and the operator returning first to find all things in readiness for extractions.

The usual daily cancellation made available one period for emergency operative work. When at all possible we rested in periods cancelled, and often this was the most wisely spent time of the day.

THE WEEK

Our rearrangement of the day with success tempted us to start on the week. We had always been amazed at the amount of work a specialist accomplished in a given time. For years we had successfully handled only younger children of school age on Saturday morning, and so decided, as far as possible, to limit certain types of work to certain days. Monday morning after a week-end off seemed to be the logical place for heavy extraction cases, and part of Wednesday morning and most of Friday were marked off for that purpose as well. This was so successful we swung prosthetics into Tuesday and Thursday mornings and soon realized that we were really accomplishing something. Not only was it easier at the chair, but it was much easier for the assistant in the way of handling instruments and materials. She could also plan model pouring, baseplate making and mounting with some system. Even the technician threw in his approval. We heard of a man who, liking to do his own set-ups, had a little motor and gas burner at home, so we did likewise, and this work is now done in comfort with the radio or company of the family, if desirable. This saves taking time from patients in the daily routine, going to the office early, pinching lunch hours or staying late.

We found it necessary to work after five sometimes, and by comparing notes realized that my assistant had

a supper meeting on Tuesday and I had one on Thursday, so we decided those were the opportune days. We kept in the back of our minds getting away early on Wednesday. In spring and summer we work right through on that day and close say, at two Saturday afternoon in our practice was always an afternoon off anyway.

THE MONTH

As our recall cards or phone calls usually get out about the tenth of the month, we have tried to keep the third week relatively clear so these patients can be seen promptly. We have found it pays with new patients to bring them in first for complete examination then the time needed can be worked out and appointments arranged to complete the entire work. We do not book "weeks ahead" and find that if we cannot do the work in a reasonable length of time it is better not to attempt it at all.

THE YEAR

The successful arrangement of the year's work depends on a well-working recall service. With this system patients are brought in at six-month intervals and can easily be swung into spring and fall. This fits in with the idea of the long vacation for recreation and rest in the summer months and periods out of the office in winter months for dental self-improvement. It is very easy to advance or delay work a few weeks if you recall your patients regularly. After years of timidity in attempting it, we have now insisted that child patients be on our regular recall service or we will not serve them except in case of emergency. It works.

We make it a point to be available two weeks before school and college opening, and on the job during Christmas vacation.

BY APPOINTMENT ONLY

The acme of success comes with the completely controlled practice. We had always associated "by appointment

only" with exclusiveness—a reputation we all wanted to avoid, but the war rush forced us to adopt the idea as a protective measure. Our chief worry was the loss of those good country patients who were in the habit of dropping into town unexpectedly and to whom we had always catered. The opposite was the result, and we soon found them writing and phoning for appointments and only too delighted themselves to be able to arrange their

day in town around the dental appointment.

The Time of Your Life constitutes your lifetime. As well as being unsystematic and poor business men, we are reported to be short lived. I recall the healthy old dentist who always had a sign on his door. When the door was open it was obvious that he was in the office. When the door was closed the sign read either GONE FISHING or GONE CURLING. Perhaps he had something.

ANNOUNCEMENT

1947 National Dental Convention

PINES HOTEL,
DIGBY, NOVA SCOTIA, JUNE 24-27

This is the month to see to your reservations. While the Committee will do its best to get every last delegate settled comfortably, it is highly desirable that every reservation possible be made this month, so that arrangements may be made as effectively as possible. Although hotel rates are going up this summer, we have a contract with the "Pines" antedating the increase. The "Pines" is one of the best tourist hotels in Canada, and other tourist hotels and cabins, in the vicinity of Digby, are available at lower rates for the overflow. Further information regarding accommodation and rates will be forwarded to those applying for reservations.

The Committee has now reached the stage, in organization, where the major plans have been blocked out, with some of the details yet to be supplied. The program has been drafted and, next month, we hope to be able to release the names of some of the essayists and clinicians. This year we expect to have some of the leaders in professional thought from the Eastern United States.

In March, questionnaires will be sent out to those applying for reservations. It is hoped they will all be answered, as accurate information will be a great help in ensuring that no one is disappointed on ferry reservations and other arrangements.

The entertainment committee is working on special arrangements for entertainment for the ladies while the business of the Convention is in progress. The "Pines" has extensive facilities for many phases of collective or group recreation.

Apply for reservations to DR. H. S. CROSBY, Birks Building, Halifax.

G. M. LOGAN,
Chairman Publicity Committee.

ANNOUNCEMENTS

Western Canada Dental Society

This Society announces a joint convention with the British Columbia Dental Association to be held at Banff, Alberta, on June 13-14-15, 1947.

The problem of accommodation at the Banff Springs Hotel is at all times extremely difficult, so every member who wishes to ensure space is advised and urged to make reservations **at once**.

Reservations are now being accepted by Dr. F. M. Murray, 802 Southam Building, Calgary, Alberta, Chairman of Accommodation Committee.

Northwest Conference in Dental Medicine

The Annual Meeting of this Conference is to be held at HARRISON HOT SPRINGS HOTEL, HARRISON HOT SPRINGS, BRITISH COLUMBIA, MAY 18-21, 1947.

For further particulars contact the Secretary.

C. R. HALLMAN, D.M.D.,
4298 Dunbar St., Vancouver, B.C.

Montreal Dental Club, Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel on October 22-24, 1947.

A cordial invitation is extended to all interested in presenting a table clinic at this meeting to communicate with Dr. C. C. Bourne, Chairman of Table Clinic Section, 1414 Drummond St., Montreal.

M. L. DONIGAN, Director,
1414 Drummond St., Montreal.

Ontario Dental Association 80th Annual Meeting

Royal York Hotel, Toronto, May 19-21, 1947.

A.D.A. Convention

The annual meeting of the American Dental Association will be held in Boston, August 4-8, 1947. Elaborate programs are being prepared by the officers of the eleven scientific sections. All scientific section meetings, clinics and exhibits will be held in Mechanics Hall.

International Dental Congress in 1947

The 10th Congress which was to have been held in London in 1941 is to be held in Boston in August, 1947, on the invitation of the American Dental Association.

Western Canada Dental Nurses' and Assistants' Association

This Association is holding its Annual Convention in conjunction with the Convention of the Western Canada Dental Society which is being held at the Banff Springs Hotel, Banff, Alberta, June 13-15, 1947.

The Forum

DENTISTRY TODAY AND TOMORROW

by PHILIP E. BLACKERBY, Jr., A.B., D.D.S., M.S.P.H., Battle Creek, Mich.

Condensed from Jour. Mich. State D. Soc., Oct., 1946.

Dentistry is faced with a number of extremely important social and professional problems with which every single member of the profession should be vitally and actively concerned. I do believe that dentistry should oppose vigorously, not passively, such legislative proposals as the Wagner-Murray-Dingle Bill, the ridiculous suggestions for belt-line practice, the plans to permit laboratory technicians to absorb all phases of prosthetic dentistry. But I also believe that the dental profession should formulate, initiate and supervise sound programs to extend high-quality dental service, as rapidly as possible, to the entire population.

First, is the problem of dental need: adult needs and child needs; initial care and maintenance care. Stated simply and briefly, almost every person in the U.S. is in need of dental care, but probably less than one-third of the population is receiving adequate care at this time, in spite of the fact that the dental profession is working at what is presumed to be its maximum capacity.

If anyone knew how to offer a workable insurance plan to cover dental care for the public, and one private insurance is now preparing to do so, I am confident that it would have wide acceptance, especially among national concerns employing large numbers of people.

Our second major problem in dentistry is personnel. Even if all dental schools should be filled to capacity

during the next few years, as it seems likely they will be, the chances are that we will have fewer dentists per unit of population in 1950 than we had in 1941 before Pearl Harbor, which is not nearly enough to meet the needs of the American public, under the existing system of practice.

Our third great problem is legislative trends, which of course are only reflections of social trends.

As Dr. Harold Oppice, Trustee of the A.D.A. said in the May issue of the Journal, "The complete story of efforts to render a comprehensive medical and dental service for the citizens of this country will eventually be written in terms of legislation. It is everyone's job to guide this legislation so that in the end it will be productive and successful."

Dentistry's worst enemy is complacency: satisfaction with the status quo. We are continually faced with the alluring temptation to rest on our laurels, to be content with the outstanding record of service which we have established in the past. It is altogether too easy, in these busy days, to become so involved in the daily routine that we forget the broader responsibilities and problems which are still unmet. It is not at all difficult to yield to the endless demands of adult patients and turn a deaf ear to the timid, half-hearted call of little children in need of dental care.

The fourth and perhaps the greatest of the problems facing us today is the problem of dentistry for children.

The American Dental Association, in its public statement of official policy, has declared that "all available resources should first be used to provide adequate dental treatment for children and to eliminate pain and infection for adults. But the average practicing dentist continues to allow adult services to take precedence in his office, and the number of dentists who refuse to care for children at all seems to be increasing steadily. Health departments are even asked to discontinue their dental health education programs because many dentists are too busy with bridges and dentures to permit even limited services for children. The tremendous backlog of dental need among adults which has accumulated as a result of dental neglect during childhood appears destined to be repeated in the next generation, contrary to all rules of common sense.

Dentistry must accept a major share of the responsibility for the neglect of children, and dentistry's conscience can never be clear if the present situation is allowed to continue. Undergraduate and continuing dental education is the fifth of our great problems.

Whether we like it or not, dentistry's opportunity to establish itself as a great health service lies in its potential ability to prevent or control disease of the mouth and teeth—not in its proven mechanical aptitudes for the aesthetic restoration and replacement of teeth. Dentistry and dental education must put first things first, and the prevention and control of oral diseases are our first responsibilities as a profession.

In the foregoing description of the five major problems in dentistry—dental need, dental personnel, legislative trends, child care and dental education—I have attempted to review in a limited way the highlights and shadows which go to make up the picture of dentistry today.

The dental profession has demonstrated, over a period of many years,

the advantages of efficient use of auxiliary personnel and equipment. For example, it has been shown that the average dentist increases his patient-load by 25 percent if he uses a second chair; that he increases his patient load by approximately 65 percent if he uses a dental assistant as well as a second chair. Although figures are not available, it is not unreasonable to assume that the dentist using a hygienist and technician as well could increase his patient-load well beyond 100 percent. Applied to the entire profession, this would have the effect of doubling the patient-capacity of our 70,000 dentists and thus approaching at least the minimum requirement estimated to meet the dental needs of the total population. Recently I visited the office of an ethical dentist who with only a periodontist to supplement his operative services, was using ten technicians and six dental assistants to carry on his busy, high-quality practice in a six-chair office.

Under existing conditions, however, only about 50 percent of the dentists in this country use assistants and only four percent employ hygienists. The number who employ full-time technicians is infinitesimal. Would it not be wise, therefore, to make provision for increasing the number and utilization of such auxiliary personnel, to determine the maximum possibilities of the present system, instead of launching an unproved, potentially dangerous plan for expanding the character of the services of such personnel, or perhaps doubling or tripling the number of dentists? It is of importance also to note that dentists, because of the exacting nature of their professional service, reach a period of declining activity at a relatively early age. The intelligent and efficient use of auxiliary personnel offers significant possibilities for the postponement of this period of decline.

Dental schools will have to make provision, as soon as possible, for the training of auxiliary workers, includ-

ing hygienists and technicians for private offices, and perhaps dental assistants, as well as for increasing the number of dental graduates, all of whom should be trained in the intelligent use of auxiliary personnel, and any legislation should and must take into account the financial assistance which will be necessary for the schools and the students as well, if these objectives are to be attained.

Dentistry must be made more at-

tractive and more accessible to boys and girls searching for a career in which to devote their life's work. Dentists must sell their profession, not their wares, to the public. Dentistry must re-evaluate its objectives and its professional philosophy and must redirect its emphasis accordingly. Dentistry must accept the challenge of prevention and control of dental disease, and dentists must serve children if dentistry is to justify its existence as a profession.

HEALTH INSURANCE

From Am. Jour. of Ortho. and Oral Surg., Dec., 1946.

"Compulsory health insurance would harm rather than improve dental health inasmuch as it would place the nation's health service in the hands of those who are not trained in the health professions."

This was the gist of remarks made recently by Dr. Sterling V. Mead of Washington, D.C., president of the American Dental Association. He put the American Dental Association on record as being opposed to any health plan where a portion of the earnings of the people would be used for inferior service and for the benefit primarily of political-minded bosses.

This objection is not new, but its repetition again by the president of the American Dental Association is a sharp reminder that there is danger of the passage of the Wagner-Murray-Dingell bill in the Eightieth Congress, and that there are strong forces at work to pass such a bill.

This bill proposes socialized medical

care at a cost of a probable 3 to 6 per cent deduction on the wage earners' pay. That, added to the present social security law on salaries and wages, will be a sizable amount.

It seems, at this crucial period, that ways and means to offset this bill have not been at all effective. There is little doubt that the nation needs better medical and dental services for all of the people; however, it is ineffective to stop this movement simply to cry, "It's Socialism," and make no further practical moves to end the increasingly manifest momentum.

The American Medical Association took an inadequate step forward in announcing a voluntary medical care plan organized on a regional basis. If the Wagner-Murray-Dingell bill is not to be passed in some form or other, substitutes heretofore not on the horizon will surely have to be created, and time is growing short.

The trend is to erase all signs of distinction of class and to put everyone on the same plane. If the level could be high enough the plan might be more reasonable. But we must condemn every effort to drag anyone down to a lower plane of opportunity and understanding.—Grace Rogers Spalding, D.D.S.

"Close your book of complaints against the management of the universe, and look around you for a place where you can sow a few seeds of happiness."



Editor: M. H. GARVIN, Winnipeg

Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:

D. T. Wayne, Charlottetown

QUEBEC:

E. T. Bourke, Montreal

ALBERTA:

H. L. Freeland, Calgary

NOVA SCOTIA:

Warren C. Oxner, Halifax

ONTARIO:

T. R. Marshall, Toronto

SASKATCHEWAN:

L. D. Haselton, Saskatoon

NEW BRUNSWICK:

John E. Edgecombe, Saint John

MANITOBA:

J. F. Morrison, Winnipeg

BRITISH COLUMBIA:

H. M. Cline, Vancouver

Editorial

THE SASKATCHEWAN PROBLEM

In the Canadian Dental Association News Section of this issue of the Journal, our Secretary has given an outline of the proposed legislation in Saskatchewan affecting the professions. Nineteen professional bodies in all will be affected and of course, dentistry is not excluded.

Laws of this kind passed in any one province must, of necessity, affect more or less every other province. No province is any more immune than are the good apples in a barrel immune when a decayed apple is allowed to remain in the midst. For this reason, if for no other, this proposed act should be studied carefully by every dentist and every dental organization in Canada. This is one more evidence that the Canadian Dental Association should be thoroughly organized with strong and efficient leadership ready to step in and deal with problems of this kind as efficiently as possible.

As a profession we might have done better than we have in controlling our own members and, given reasonable government support, it would have been much easier than it has been to raise standards. Too often when some dentist with deplorably low professional standards is taken to task by the Dental Board the action is followed by a private Bill, or action is curtailed, fearing government interference. More might have been done also with government assistance in insisting that all dentists attend conventions and post-graduate courses regularly and so advance with his professional *confrères* to the point of being able to render reasonably up-to-date service. However, on the whole we have done a fine job of serving the public and have given a health service of which we can be justly proud.

To take the control out of the hands of the profession and turn it over to a Board appointed by the Government, members of a Board who eventually if not at first, will be appointed for their political achievements, not because they know anything about dentistry, is simply jumping from the frying pan into the fire. In other words it is a piece of vicious legislation.

One does not need to be a prophet to forecast that if this Act goes through and we sincerely hope it won't, dentistry will be set back in Saskatchewan many years. The profession will be stultified and it will make for progressively poorer dental service. The members of the profession will soon become Government chattels with complete loss of professional freedom. An old saying will become applicable, "What happens to your patient is of no consequence provided your returns are correct".

Another demoralizing clause in this Bill is the one authorizing this political Board to prescribe the maximum fees chargeable by dentists for professional service. In government owned clinics, staffed with salaried personnel, the fee for a particular operation is no problem, but in private practice where conditions vary tremendously, the fee problem is a most vital one. As has been stated before in these columns men are not equal and any satisfactory system of remuneration must involve differentiation dependent upon ability and effort. Men must be able to feel that more than ordinary ability and effort will receive adequate reward or else this effort, in many cases, will not be made. An equitable fee for a leader with a finely equipped office in a large city would be extravagant for the work done by a less competent operator in a shabby office. Furthermore if fees are equalized the better men will be swamped with patients granting that they decide to continue to practice their profession in the province of Saskatchewan, (at present there is no law prohibiting them from moving to another province if they so desire). This equalization may lead to iniquitous practices. Would it be wrong for a patient to give the dentist he wishes to care for him a box of bon bons for a Christmas remembrance—perhaps not, but what would be the attitude if these gifts increased greatly in value and assumed the significance of black-market methods? As stated before, we are satisfied that there is a far greater diversity of ability than admits of remuneration by some single scale of fees applicable to all.

For years the dental profession has sought to give a satisfactory service to the public. Money has been spent to educate the public to the necessity of having a healthy mouth. Means have been sought to give service to the indigent and to those living in outlying districts, and this has been carried out to the extent that the government has been prepared to cooperate; but in this proposed Saskatchewan Act the writer can see nothing but retrograde action. The independence of our profession is at stake. M. H. G.

Editor's Note:—Since writing the above editorial word has been received that the Minister of Health for Saskatchewan has given assurance to the Council of the College of Dental Surgeons of that province that no legislation in respect to Professional Acts will be brought in at this sitting of the Legislature, and that if any such legislation is brought in later on that the professions will be given an opportunity to discuss the changes.

BOOK REVIEWS

Oral Surgery, by Sterling V. Mead, D.D.S., M.S., B.S., Washington, D.C. 1450 pages. 805 text illustrations with 16 colour plates. Third Edition, 1946. Published by C. V. Mosby Company, St. Louis. Canadian Agents, McAlinsh and Co. Ltd., 388 Yonge St., Toronto. Price \$16.00.

This is a monumental work beautifully illustrated on Oral Surgery by the President of the American Dental Association. In this book the author has presented a practical application of oral surgery from cases within his own experience. This third edition has permitted the author to bring the work up to date and condense as much as possible the forms of treatment found to be successful in his hands. New and valuable improvements coming out of the war effort also have been included.

The following subjects are discussed:

Diagnosis; Anatomic Relations; Preoperative Preparation; Selection of Anaesthesia; Emergency Measures; Surgical Technique; Special Drugs for Surgery of the Mouth; Chemotherapy; Hospitalization; Sterilization; Inflammation; Surgical Bacteriology; Non-specific Infections; Infections of the Face, Neck and Floor of the Mouth; Specific Infectious Diseases; Wounds and Injuries; Periapical Diseases of the Teeth; Surgical Treatment of Periodontal Disease; Residual Infection; Removal of Teeth and Foreign Bodies; Surgical Preparation for Restorations; Surgical Correction of abnormal Frenum Labii; Apicoectomy; Plantation of Teeth; Fractures; Temporomandibular Joint; Diseases of Maxillary Bones; Maxillary Sinus, Salivary Glands and their Ducts, Nerves, Lips and Cheeks, Tongue; Malocclusion; Haemorrhage; Syncope, Shock and Collapse; Hairlip and Cleft Palate; Tumours; Cysts; Physiotherapy; Postoperative Treatment; Diet and Nutrition.

Nearly all dentists perform some surgical operations and every dentist should become qualified in recognizing a pathologic condition in the mouth and adjacent structures but the practitioner should attempt treatment of only those cases which he is fully qualified to manage successfully and carry to completion. A study of this splendid book should enlarge the field of many dentists and help one to im-

prove his technique. As one improves his technique his methods become more simplified and his patients are better satisfied. M. H. G.

Psychobiologic Foundations in Dentistry, by Edward J. Ryan, B.S., D.D.S., Editor, Oral Hygiene and The Dental Digest, Past President of the Chicago Dental Society. 1313 pages. Published by Charles C. Thomas, 301 East Lawrence Ave., Springfield, Illinois, U.S.A. Price \$3.00.

Because this book is unusual and because it has been written by an outstanding member of our profession, it should have a wide circulation.

It is pointed out and rightly so, that while dentistry has reached great heights in technical skills, the more that expert dental procedures are performed against a background of biologic awareness, the more likely they are to succeed; that dentists should see their patients in the wholeness of their being rather than in the separateness of their dental diseases.

The author states that if every dentist knew more about the inherent constitution that man brings with him to the dental chair, many diagnoses and treatment plans would be altered radically. The book then outlines studies on constitutional physiology, pathology and psychobiology.

Dr. Ryan brings to our attention that diseases of the hard and soft mouth structures may be a part of our emotional state and compares the softening-up process in attacking an enemy in war time prior to actual invasion as representing the emotional and autonomic forces that prepare the mouth for the assault of bacterial hordes.

It is pointed out that no one has proved to date that dental caries and periodontal disease may be produced by emotional stimuli or tensions but that it is possible, that chronic tension may be expressed in any tissue. "Hating somebody all day long is more tiring than working in the fields from sun-up to night-fall".

Undoubtedly we have largely overlooked the fact that physical health is intimately interwoven with psychic health and as the author states, we have it within our power to help conquer dental fear by the device of a better

understanding of "the Man within the patient". Further, that denture successes and failures are not always the result of the technique used.

The author's views of the successful treatment of periodontal lesions are, rather too pessimistic in this reviewer's opinion. It is stated that by appropriate treatment we may keep the inflammatory reaction under some control and slow the process of bone degeneration but that whatever we do we must reconcile ourselves and the patient to the fact that within the tissue there are degenerative changes that are irreversible and that are potentials for tooth loss. It is the opinion

of this reviewer that periodontal lesions can not only be successfully treated, but by reasonable post-operative care, the teeth can be retained in a condition of health almost indefinitely in a very large majority of cases.

A study of this book will undoubtedly enlarge the concept of the dentist and broaden the base upon which successful dentistry may be practised and success means, as the author points out, that the dentist's service is well performed, that the patient is satisfied and that the dentist has been able to make an honourable profit from the transaction: if the patient is dissatisfied it is not successful practice.

M. H. G.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS

RETIREMENTS

Rank, Name and Date	Civilian Address	Rank, Name and Date	Civilian Address
Capt. W. G. Hogg, 14-9-46	Charlottetown, P.E.I.	Major A. A. Stewart, 29-10-46	Toronto, Ont.
Capt. K. A. Hetherington, 12-10-46	Woodstock, N.B.	Capt. F. W. Tropea, 5-11-46	Toronto, Ont.
Capt. H. P. MacCormack, 10-10-46	Halifax, N.S.	Capt. J. W. Valliquette, 3-9-46	North Bay, Ont.
Capt. G. B. Robinson, 9-10-46	Kentville, N.S.	Capt. S. R. Webster, 10-10-46	Mount Dennis, Ont.
Capt. G. H. Deschenes, 7-10-46	Price Cte, Matane, Que.	Capt. J. N. Wills, 21-10-46	Rideau Ferry, Ont.
Capt. J. F. J. Desjardins, 9-10-46	Outremont, Que.	Capt. S. C. Cohen, 25-10-46	Winnipeg, Man.
Capt. E. S. Dorion, 22-10-46	Montreal, Que.	Major D. A. King, 1-11-46	Winnipeg, Man.
Capt. A. P. Fleury, 29-10-46	Montreal, Que.	Capt. W. J. Schadek, 6-11-46	Winnipeg, Man.
Major P. A. Beattie, 19-10-46	Toronto, Ont.	Capt. R. E. Wallace, 10-10-46	Winnipeg, Man.
Capt. H. E. Buder, 18-10-46	Ottawa, Ont.	Capt. C. C. Harrison, 23-10-46	Evesham, Sask.
Capt. J. A. Burstein, 22-10-46	Toronto, Ont.	Capt. A. Kanee, 7-11-46	Melville, Sask.
Major J. N. Dore, 12-10-46	Hamilton, Ont.	Capt. W. D. Robb, 19-10-46	Regina, Sask.
Capt. R. B. Dunlop, 5-11-46	Toronto, Ont.	Capt. D. S. Ferguson, 9-9-46	Edmonton, Alta.
Major B. M. Johnston, 26-10-46	Barrie, Ont.	Lieut. J. H. Jones, 9-10-46	Edmonton, Alta.
Major J. G. Paterson, 29-10-46	Toronto, Ont.	Capt. D. Kovitz, 9-10-46	Calgary, Alta.
Capt. M. Pearlman, 10-10-46	Toronto, Ont.	Capt. W. J. Curry, 11-10-46	Vancouver, B.C.
Capt. J. G. Ryan, 8-10-46	Toronto, Ont.	Major M. A. Dumont, 11-10-46	Rosebery, B.C.
Major R. L. Slemmon, 6-11-46	Kingston, Ont.	Capt. N. C. Ferguson, 16-10-46	New Westminster, B.C.
		Capt. A. N. McDougall, 11-10-46	Prince Rupert, B.C.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Action by Committee on Industrial Dentistry

The Dental Division of the Department of National Health and Welfare is cooperating with the C.D.A. Committee on Industrial Dentistry in sending out a questionnaire to all industrial plants employing fifteen or more people (some 15,000 in all). No accurate data is available at the present time respecting industrial dental service in Canada. This effort is being made in order to compile such data.

The questionnaire will be sent out during the month of March. A number of dentists across Canada may be consulted in respect

to this matter. It is in the interests of the dental profession that these questionnaires be returned with as much accurate detail as possible.

Dental Hygienists

At the recent meeting of the Board of Directors of the Royal College of Dental Surgeons of Ontario, the following resolution was passed:

"That this Board recommends to the C.D.A. that the Council on Dental Education of the C.D.A. be requested to recommend uniform standardization of education for dental hygienists under the headings of:

- (1) Matriculation requirements
- (2) Educational curriculum
- (3) Uniform licensing by provinces."

Saskatchewan and British Columbia Raise C.D.A. Grants

Statement from Saskatchewan—

"At a meeting of the Council of The College of Dental Surgeons of Saskatchewan, on November 18, it was unanimously agreed that the fee to the Canadian Dental Association be raised to \$5.00 per person, per annum. This will be effective when we remit our dues the first of the year."

Statement from British Columbia—

"I beg to advise that on November 23 the Council agreed to increase the grant to The Canadian Dental Association for 1947 to five dollars (\$5.00) in respect to all members of the College practising within the Province on the second day of January, 1947."

Eight provinces have now increased their grants to the C.D.A. since the annual meeting last May. One increased to eight dollars *per caput*, one to six dollars, and six to five dollars *per caput*. Several provinces have expressed their willingness to make a further increase as soon as other provinces are willing to do so.

D.V.A. Dental Services

Manitoba has forwarded the following resolutions as passed at the annual meeting of the Manitoba Association held in November. Both resolutions have been referred to the Dental Services Committee for consideration.

1. "A resolution drawing attention to the discrepancy in the dental fees paid by the D.V.A. for services rendered ex-service personnel as compared with those paid in the U.S.A. for similar services and urging that the C.D.A. endeavour to have this matter corrected by an upward revision with a fee included for examinations."
2. "A resolution urging that all persons receiving D.V.A. Benefits be permitted to go to their own dentist for dental service. This includes students under the D.V.A. We understand that this privilege is now conceded for medical service."

Proposed Legislation in Saskatchewan

A Bill has been drafted, entitled "The Professional Associations Act 1947", and described as "An Act Governing Membership in Certain Associations and Licensing Members thereof", which it is proposed to bring before the Legislative Assembly of Saskatchewan at its forthcoming session.

The Bill leaves little in doubt as to its scope, as it is stated that:

The Legal Profession Act,
The Medical Profession Act,
The Engineering Profession Act,
The Dental Profession Act,
The Pharmacy Act,

and fourteen other similar Acts together with all by-laws, rules, regulations, orders, tariffs made pursuant to any of the said Acts shall be subject to the provisions of this Act.

Boards of administration for the proper administration of the proposed Act and relevant regulations are to be established with relation to each association, consisting of three members to be appointed by the Lieutenant Governor in Council. Where the Council of an association nominates a representative, the Lieutenant Governor in Council shall appoint him as *one* of the members of the board relating to the association.

The power to make regulations for each association rests with the Lieutenant Governor in Council. The regulations appear all inclusive and include the following:

- (a) Subject to section 7, (which refers to an arrangement with the University of Saskatchewan respecting examinations) prescribing the qualifications, course and manner of study of students and the requirements preliminary to their admission as members of the association.
- (b) prescribing the qualifications for admission of persons who have been entitled to practise in any place outside of Saskatchewan.
- (c) granting status to students from outside Saskatchewan.
- (d) providing for registration by the board of members of the Association and students.
- (e) prescribing the fees payable to the board upon application to it for admission to membership in the association or for registration of a student.

- (f) providing for cancellation of the registration of any person whose application for registration is found by the board to have been based upon any false or fraudulent statement, and prescribing the conditions upon which such person may be reinstated if the board deems fit.
- (g) providing for annual licenses, governing applications therefore and prescribing the fee payable to the board upon application to it for a license.
- (h) providing for striking the name of any person off the register of members of the association kept by the board and for suspending a member from practise for failure to apply to the board for an annual license and prescribing the conditions upon which he may be reinstated if he obtains an annual license.
- (i) PRESCRIBING THE MAXIMUM FEES CHARGEABLE BY LICENSEES FOR PROFESSIONAL SERVICES.
- (j) governing the conduct of members and students and providing a code of ethics for members and students.
- (k) defining unbecoming, improper or discreditable conduct, for the purpose of this Act.
- (l) governing the procedure of the council and the board.
- (m) governing the application of monies received by the board.
- (n) governing the keeping of records of all monies received and disbursed by the board, providing for the deposit of monies received in chartered banks to be designated by the Provincial Treasurer and governing the signing of cheques issued by the board.
- (o) prescribing penalties for violation of the regulations.
- (p) generally for the purpose of carrying out the provisions of this Act according to their true intent.

It should be observed that these powers are to be possessed by a Board of three appointed by the Lieutenant Governor in Council one only of which may be upon recommendation of the representatives of the profession.

All regulations made must be laid before the Legislative Assembly and if annulled cease to have effect.

No person shall after the thirty-first day of December 1947 practise or hold himself out as practising any of the professions mentioned in any of the Acts referred to unless he is registered with the Board and holds subsisting licence to practise issued to him by the Board.

Under the proposed Act provision is made for a Council or other governing body of an association. Two purposes are indicated for the existence of this Council:

- (1) In the arrangement for examinations with the University of Saskatchewan, it is provided that the Senate of the University shall confer with the Council in order to appoint a board of examiners consisting of three or five members, a majority of whom shall be practising members of the association.
- (2) Under discipline provisions a Council may appoint a committee not exceeding five for the purpose of conducting an enquiry. At the expense of the association the Council may employ legal or other assistance. However the Council shall have *no disciplinary powers*. All disciplinary powers are under the jurisdiction of the Board and the Council can only submit report and recommendation to the Board.

Comment

This proposed bill is a concatenation of motives which have only the end result of making every professional member the subject of the political whims of the day. It is just the sort of arrangement which has been found wanting elsewhere and only after sad experiences has amendment been made. Under this proposal any dentist, lawyer or medical practitioner may find himself the subject of continued discussion on the floor of the legislature and continuously under political control. Even if the present legislators may be considered as saints (and I do not believe they are) who knows what their successors may be?

Of recent years governments have recognized the weakness of bringing groups under political control, if not for themselves, then for their successors. This proposal is definitely a retrograde step in legislative trends.

DON W. GULLETT, *Séc., C.D.A.*

NEWS FROM THE PROVINCES

QUEBEC

Montreal Dental Club

The 49th annual meeting of this Club was held on Dec. 16, with Dr. A. W. Mitchell presiding.

Dr. Mitchell reviewed the Club's work during the past year and referred to the large increase in membership due to the return to civilian life of so many who had gone directly from dental school into the services. Encouraging reports were also presented by the secretary, Dr. T. R. Murray and the treasurer, Dr. C. R. Seller. Dr. M. L. Donigan reported on the 22nd Annual Fall Clinic held last October under the auspices of the club.

Three honorary memberships were conferred at this meeting as follows:

Dr. J. S. Dohan, presented by Dr. George Cameron.

Dr. M. W. Marston, presented by Dr. Marston Adams.

Dr. H. V. Driver, presented by Dr. O. A. Lefebvre.

These three new honorary members all replied expressing their thanks for the honor that had been conferred upon them.

Election of officers for 1947 took place with the following results:

Honorary President, Dr. A. W. Mitchell.

President, Dr. R. B. Bell.

President-elect, Dr. J. W. Abraham.

Secretary, Dr. T. A. Murray.

Treasurer, Dr. C. R. Seller.

Historian & Archivist, Dr. C. C. Bourne.

Executive: Drs. A. G. Racey, W. H. Boyles,

J. M. Chamard, F. A. Edward, T. Ivan Guildboard, Donald C. Gordon.

Montreal Endodontia Society

At the December meeting of this Society a practical demonstration of "Immediate Sterilization and Resection" was presented. An upper central incisor with chronic abscess and fistula was used for the demonstration. This was opened and filled by Dr. Marcel Archambault. Besides the usual cleaning out of the canal by filling, dehydrated phenol sulphonic acid was used to further enlarge the canal. Care should be taken not to pass the apex with this acid, and it should only be

used in cases where immediate resection is to be done. The canal may be filled beyond the apex in these cases.

The immediate root resection was performed by Dr. H. H. Pearson. After removal of the involved apex and curettage of the pathological area the root canal filling was burnished with a hot ball burnisher, and the root end painted with silver nitrate in 28% ammonia and precipitated with eugenol. The entire area was then washed out with sterile warm normal physiological saline solution before suturing. After suturing the area was painted with tincture of benzoine and the infra red lamp used for fifteen minutes, twenty inches from the face.

Dr. A. D. Richardson acted as narrator for this demonstration which was much appreciated by all the members of the Society.

BRITISH COLUMBIA

Vancouver and District Dental Society

At the January 7 meeting of this Society Maxwell Evans, M.D.C.M., C.M.R.E., "Cantab" who is the Medical Director of the B. C. Cancer Institute, spoke on "Malignant Diseases of the Oral Cavity". He read a paper, interspersed with informal remarks and illustrated slides. Recognition of abnormalities in the mouth on the part of the dentist would lead to early treatment and better prognosis. In bringing before the Society such medical men as Dr. Evans the Executive recognizes the importance of medical and dental co-operation for the welfare of the patient.

Elected to membership in the society were: Dr. M. A. Dumont, Graduate of the University of Alberta and Dr. J. C. Rife, Graduate of the University of Toronto.

ALBERTA

Edmonton Dental Society

The feature of the January 7 meeting of this Society was a series of short talks by members of the various departments of the Dental Faculty of the University of Alberta.

Dean W. S. Hamilton gave a history of the Dental Faculty and told of the problems of today and the hopes for the future. Dean Hamilton then introduced the respective speakers.

Dr. H. E. Rawlinson represented the Basic Sciences; Dr. I. H. Barr, Oral Diagnosis; Dr. Jack Neilson, Oral Pathology and Periodontia; Dr. R. A. Rooney, Prosthetics; Dr. W. M. Gourlay, Surgery and Medicine.

The speakers were thanked on behalf of the Society by Dr. Harry Brown, former Colonel in the Canadian Dental Corps.

The meeting was terminated by a talk by Dr. W. E. Addinell, District Administrator of the Dental Division of the D.V.A., who gave an outline of the recent changes in the D.V.A. requirements.

SASKATCHEWAN

Moose Jaw Dental Society

At the December meeting Lieutenant-Colonel W. R. Fysk spoke on various phases of World War II from the time of the evacuation of Dunkerque to the invasion of Europe on D-Day.

The members discussed at length the proposed Professional Services Act, formed a dental study club and an association for the dental assistants.

At the January meeting Dr. F. C. Heal gave a very instructive talk on the various new drugs which have come into use during the war; and their dental application, such as the sulphonamides, penicillin and anti-histamine. The meeting adjourned to one of the offices to study a phase of dental practice.

Saskatoon Dental Society

Dr. Jackson, Professor of Anatomy at the University of Saskatchewan, spoke on Dental Embryology. This was a most interesting and valuable address.

Arrangements were made for the visit of Dr. Roy West, Professor of Oral Surgery, University of Oregon in February. We hope that the dentists of Northern Saskatchewan will avail themselves of this opportunity to meet and hear this noted dentist.

MANITOBA

Manitoba Dental Association

As intimated in the December number of the Journal a special meeting of the Manitoba Dental Association was held on January 8 to consider legalizing dental hygienists

as an auxiliary to dental practice in Manitoba. An expression of opinion was secured from about five-eighths of the membership of the Association at a ratio of about five to two in favour of using dental hygienists in Manitoba. This ratio is a complete reversal of the opinion expressed on the subject in 1931. At that time times were a bit severe with not enough patients. Fifteen years later there are too many patients.

The next step in Manitoba will be to secure satisfactory legislation for licensing the hygienist. It is interesting to note that the R.C.D.S. of Ontario (the legal body) has submitted the education and licensing of dental hygienists to a committee of the C.D.A. for an expression of opinion under the following headings. Matriculation requirements, Educational curriculum, Uniform licensing by provinces. It would be well to have all three uniform.

Winnipeg Dental Society

On January 13, this Society presented Dr. E. A. Nelson of the Faculty of Dentistry, Minnesota University, to discuss "Gold Inlays". The old, old problem of how to make a gold inlay accurately fit every time, the cavity for which it is intended does not seem to have been solved as yet. There are not yet enough good guessers.

Dr. Nelson gave an extremely interesting dissertation on the problems involved and one is ready to believe that he has much success with castings. When one occasionally runs across some of Les. Bannerman's inlays we realize that he seemed to have been able to make them as nearly perfect as anything we have seen. We would still like to know the secret of his success. Both the afternoon and evening sessions with Dr. Nelson were well attended.

Dr. Thos. Blight, President of the Society, presided at both sessions.

Winnipeg Dental Nurses' and Assistants' Association

At the January 6 meeting of this Association under the direction of Miss Jane McClure, several of the members read interesting papers containing helpful hints for the dental assistant.

DOROTHY A. McCULLOCH

ONTARIO

Hamilton Dental Association

This Society with a membership of over 100 dentists is one of the larger dental organizations in Canada. Members represent many points in the Hamilton district and include such centres as Galt, Kitchener, Woodstock, Brantford, St. Catharines, Niagara Falls, Dunnville and Simcoe.

This organization meets once each month from October to April and meetings are held in the Royal Connaught Hotel, Hamilton. The usual routine is dinner at 6.30 followed by a clinician or speaker from either the United States or Canada. Local dentists or speakers add to the program.

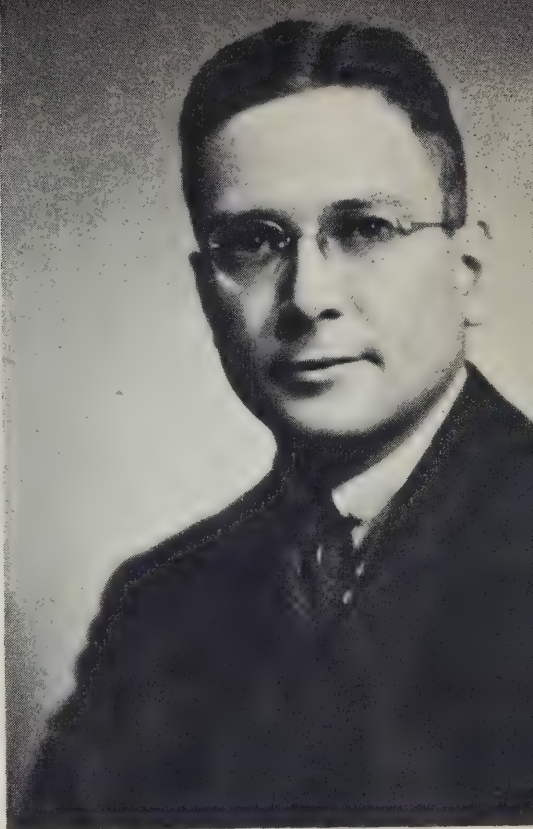
The Hamilton Dental Assistants' Association have their meetings on the same evenings and are often invited to share special programs, which would be of interest to them. This feature is of great value to both the dentist and his assistant.

The program for the season is lined up and arranged during the summer months by the new executive, which is elected in April. This year, great credit must be given to President, Dr. Archie H. Leckie and his able chairman of the Program Committee, Dr. D. E. Shultis. The Society frequently co-operates with the Toronto Academy of Dentistry by sharing the same essayist on consecutive nights when some outstanding man has been secured from the United States. There have also been many calls on the Royal College of Dental Surgeons and the fine staff of teachers of the Faculty of Dentistry, University of Toronto. Their splendid co-operation has always been appreciated.

The following is a resumé of the program for 1946-47.

In October, Dr. Felix A. French of Ottawa was the guest, presenting "Balanced Occlusion—Some of its Problems". In November Dr. Emil Hauser of Chicago lectured and his subject was "Health and Posture of the Dentist".

In December Dr. P. G. Anderson gave an interesting discussion on "Fixed Bridge Prosthesis". Dr. J. H. Bothwell, president of the University Dental Alumni also was present at this meeting. At the January meeting Dr. C. H. Bliss of Sioux City, Iowa gave a discourse on practice management. On February 5 Dr. James Coupland of Ottawa presented an illustrated lecture entitled "Radiodontic Interpretation—



DR. A. H. LECKIE

President of the Hamilton Dental Association

A Scientific Approach in Oral Diagnosis".

The next meeting will be held on Wednesday March 12 and Dr. Claude Bierman of Minneapolis will be the clinician—essayist. His subject will be "The Value of Children in General Practice". Dr. Bierman has specialized in dentistry for children for the past 25 years and has been in great demand as a teacher both in Canada and United States. There will be 2 sessions—one beginning at 3 p.m. and the second at 6.30 in the evening.

The final meeting of the year will be held in April, the date to be announced later. The program for the evening consists of society reports, election of officers and an evening of fun and fellowship.

Officers of the Association for this year are:—

President—Dr. A. H. Leckie, *Past Pres.*—Dr. W. W. Baxter, *Vice-Pres.*—Dr. H. T. Totton, *Secretary*—Dr. J. G. Countryman, *Treasurer*—Dr. E. J. Dore, *Chairman of Program Committee*—Dr. D. E. Shultis, and *Directors*—Drs. W. E. Foster and G. W. Spinks.

J. G. COUNTRYMAN,
Secretary

Ontario Dental Association

Program plans for the eightieth Convention of this society are well underway. The following essayists and clinicians will take part:—

ESSAYISTS

- Rowe Smith, D.D.S., Texarkana, Texas,—
"Periodontia."
Paul Losche, M.D., Paediatrician from Children's Hospital, Boston.
R. E. Valin, M.D., F.R.C.S., Ottawa—"Cancer particularly as it pertains to the mouth."
Harold A. Mitchell, M.D., Paediatrician and District Health Officer for Lower East New York, will be speaker at Dental Public Health luncheon.

GROUP CLINICIANS

- Drs. Losche & Mitchell, Paediatrician's Viewpoint of Dentistry for Children.
Dr. H. R. Kingery, Ann Arbor, Prosthetics.
Dr. W. Harry Archer, School of Dentistry, University of Pittsburg. Oral Surgery & Anaesthesia.
Dr. Rowe Smith, Texarkana, Texas. Periodontia.
Dr. R. G. Ellis, M.S.C. (Dent.) F.A.C.D. Examination of Child's Mouth.
M. M. Rockman, D.D.S., B.S.C. (Dent.) Orderly Procedure in Radiodontics.
M. A. Cox, M.B. Some Aspects of Preventive Dentistry.
Drs. P. G. Anderson & Owen Yule. Crown and Bridge and Splinting.
Drs. F. L. Cole & R. L. Twible, Complete Dentures.
D. R. Meyer, Ph.D., Child Psychology.
Drs. R. J. Hemmerick & W. J. Ross, Kitchener. Inlay Technique.
Dr. George Hare, Endodontia.

London Dental Society

The officers of this association for the 1946-47 season are as follows: President, Dr. Stanley R. Moore. Sec.-Treas., Dr. Arthur G. Davidson. Committee members, Dr. Cecil M. Snelgrove and Dr. Cecil L. Strachan.

The first general meeting was held November 23 when Dr. Gordon Johnston of Toronto, presented a clinic and paper on "Amalgam Restorations", which was largely attended and which proved most instructive. Some interest here is being created in regard to the re-establishment of an "Amalgam Group" to standardize modern amalgam technique, and at present this project is in the capable hands

of Dr. Rex Sykes and Dr. J. O. McCutcheon.

The second general meeting was held January 18 when Dr. Cecil Bliss, Sioux City, Iowa, spoke on "Maintaining a Successful Post-War Practice".

The third general meeting will be held February 15 when Dr. P. G. Anderson of the Faculty of Dentistry, Toronto, presents a table clinic in the afternoon, followed by a paper on "Crown and Bridgework".

The fourth general meeting will be on March 14, when Dr. Claude Bierman of Minneapolis will address the Society on some phases of "Dentistry for Children".

The fortnightly luncheon meetings are a feature of this Society. A goodly number attend each second Thursday at the Y.M.C.A. and this affords an excellent opportunity for sociability and instruction. The subjects range from a discussion of the material presented by the speakers at the general meetings, to problems of local interest. For example, Londoners recently voted another extension to Victoria Hospital, and Dr. Lorne Taylor lead a discussion on "The Establishment of a Dental Department in Hospitals".

Dr. George Squire presided at a discussion of "Periodontal Problems".

Dr. Earl Fuller at another session gave us an outline of "Retention in Fixed Bridgework".

Dr. Fred Baker has most kindly offered to conduct a limited clinic on "Root Canal Treatment", at his office, and this study group is being organized now. This is an ideal opportunity for the younger graduates especially to receive invaluable aid from one of our outstanding men in root canal therapy and technique.

Most, if not all, who were in practice in London prior to service in the Canadian Dental Corps have returned to civilian practice, and with the addition of several newcomers London is now well equipped to supply the dental needs of the city and district, and we feel we have a strong and active society.

A. G. DAVIDSON, *Secretary*

Class Re-Unions

Those classes that are contemplating reunion dinner parties during the Ontario Dental Association meeting next May should reserve accommodation at once. Contact your Dental Alumni representatives—Dr. Jess Ful-

lerton, 2 College Street, Toronto, or Dr. A. R. Kerr, 623 Danforth Ave., Toronto, stating approximate size of party and accommodation desired.

Class '17

Freshman Class 1914, graduating 1917, and anyone who was a member at any time during College days. Monday, May 19, Royal York Hotel.

DR. H. D. LEUTY, *Secretary*

Class '37

The class of '37 is holding a reunion during the Ontario Convention next May. The members should not miss this opportunity to get together. Watch this magazine for further announcements.

DR. G. A. COWAN,
Hespeler, Ontario, *Secretary*

**Ladies' Auxiliary to Academy of
Dentistry**

The activities of this group of ladies continue under the leadership of president Mrs. L. R. Davidson. The North end sponsored a floral display under the direction of Miss Dorothy Herbert who was presented by Mrs. R. G. Ellis. Following the meeting, tea was served with Mrs. Boyes, Mrs. Tanner, Mrs. Armstrong, Mrs. Dickinson, Mrs. Hobden, Mrs. H. Milburn, and Mrs. S. Milburn assisting.

In January a luncheon was held at the Royal York Hotel. Program was arranged by West end and Mrs. F. J. Conboy presented Mr. W. D. Tucker who lectured on "Colour in your Life". Miss Myrtle Webber, concert pianist, entertained with music.

**Toronto Dental Nurses' and
Assistants' Association**

This Association began its activities for the term 1946-47, on October 7, with a general meeting at the Royal York Hotel and with President Tomye Turner in the chair. The guest speaker for the evening was Mr. W. G. Frisby who spoke on the "Art of Public Speaking".

At the meeting on November 4 the members were privileged to hear Dr. W. L. Huggill who gave a most informative talk on "Silicates".

Instead of a meeting in December, the Association accepted the invitation from the Toronto Dental Academy to join them in their "Winter Clinic" program. Many girls from out of town were also present, and a very successful afternoon and evening ensued.

On December 20 many Toronto members attended the Christmas party given to the men at Red Chevron Hospital by the Ontario Dental Nurses' and Assistants' Association. This was a wonderful party.

The first meeting of 1947 was held on January 6. After the usual business announcements had been made, and New Year's Greetings extended to all by our President, the guest speaker Dr. R. E. Diprose was introduced. Dr. Diprose spoke on "X-Ray Interpretation" and illustrated his address by projecting x-rays on the screen. Everyone enjoyed Dr. Diprose's visit and because of it, perhaps x-ray interpretation will be a little more simple in our offices.

Our meetings so far this term, have been well attended and the Toronto executive is encouraged by this continued support.

MARGARET MOFFAT, *Recording Sec.*

EMPIRE NEWS

GREAT BRITAIN

**The National Health Services Bill for
England and Wales**

by T. C. ROUTLEY,
C.B.E., M.D., LL.D., F.R.C.P (C)
Toronto, Ontario.

Condensed from Can. Med. Assoc. Jour., Jan., 1947.

The medical profession of the British Isles is gravely concerned about this legislation

and great activity goes on in the B.M.A. in an attempt to determine what action the profession should take. On all sides, the burning questions seemed to be:

Now that the legislation has become law, should we negotiate with the Government and try to salvage the best possible out of the Bill or should we refuse to negotiate and thus make clear that we will have nothing to do with it?

If we refuse to negotiate, will the profession stand together and will the public support the position we take?

It is common knowledge that the party which forms the present Government in England is on record as having strongly advocated complete socialization of the medical profession, and the profession holds that the only reason the administration has stopped short of the party's goal in the present Bill is the fear that the profession could not be persuaded to swallow more than is now proposed. However, the doctors believe that the Government hopes and expects that, in progressive stages, it can move on to the complete fulfilment of the party's pre-election pledges of free treatment for everybody from the cradle to the grave with the doctors ultimately becoming whole-time employees of the State.

Many doctors with whom I discussed the legislation were of the opinion that, under the new Act, the medical profession of the United Kingdom will slowly but surely be sucked into state medicine by becoming full salaried civil servants.

The time has now come for a crucial decision by the profession. The Act authorizes the Minister now to proceed to make regulations dealing with a wide variety of subjects, including mode and amount of professional remuneration, the terms and conditions of service generally, and the composition of Regional Hospital Boards.

The immediate practical issue which confronts the profession is whether it will or will not enter into discussions with the Minister on the subject matter of these regulations. This is the issue which the Association places before the profession as a whole to determine by plebiscite.

As the statement accompanying the plebiscite clearly indicates, the medical profession in the British Isles are now facing the most crucial test in their history. If they refuse to negotiate, the Government will be under the necessity of working out the regulations by itself. According to the B.M.A., it would then be very difficult to put the scheme into effect because the doctors would not work it. On the other hand, if the doctors decide to negotiate, it would seem reasonable to assume that they would have some influence on the content of the rules and regulations

and they would still have the right to refuse to operate the Act if they did not approve of the rules and regulations. Accordingly, there are two schools of thought in the profession with respect to the Act. The "all-against" say, "Have nothing to do with it; do not negotiate". The more cautious say, "Let us negotiate in the hope that rules and regulations may be devised under which we can satisfactorily practise."

The whole world—certainly the medical world—is interested in watching the health legislation which is being developed in the British Isles. Without a doubt, the medical profession there, are at the cross roads, and a socialist government which is pledged to nationalize banks, transportation, mines and medicine is directing the traffic. The British Medical Association has 53,000 members, representing about 80% of the medical population of the British Isles, and a large majority of the profession appear to place implicit faith and confidence in their Association to lead them successfully through the present crisis.

The "Closed Shop"

A London borough council has issued notices of dismissal to the matron, deputy matron and 36 sisters and nurses of one of their hospitals and the entire midwifery staff of their maternity hospital as well as the domiciliary midwives of the borough because of their refusal to join a trade union. At least one of their medical officers has received a similar notice.

This is part and parcel of a policy which is being adopted by many local authorities that, as in the case of industry, all their employees must belong to a trade union affiliated with the Trade Unions Congress. In the case of nurses and doctors the important point is that neither the College of Nursing nor the British Medical Association is recognized as a trade union because neither is affiliated with the Trade Unions Congress.—*From London Letter in Can. Med. Assoc. Jour. Jan. 1947.*

The Professions and the "Closed Shop"

The reports in the daily press have sounded an alarm for the medical profession and the sister-profession of nursing. Whatever may be the advantages of what has come to be called the "closed shop" in other walks of

life, it had occurred to few of us that we ourselves might have to reckon with this new order of things. That nurses should be given notice of dismissal when the hospitals of England are short of between twenty and thirty thousand would require adequate justification at any time. But that the reason for this step is their not belonging to a trade union or its satisfactory alternative seems nonsense and does little to reassure those who are doubtful for the future fortunes of the medical and nursing professions when their affairs fall into the hands of the State.

—*Guy's Hospital Gazette*

NEW ZEALAND

State Medical Service

A member of the New Zealand medical profession visiting in Detroit recently said that

in New Zealand the government levies income taxes on all incomes in excess of \$9000 of 87.5 per cent of the gross. He was a government official and favoured the present plan for medical service there. Before 1935 he says the average income of doctors was \$2,100 net. Now under the present government plan it is \$12,000 gross and about \$7,500 net. Doctors may do private practice and make whatever charges they wish, but the income tax provision tends to limit such charges. Hospital pay is inadequate, but the hospitals do not worry much because they have the privilege of charging taxes on the community for their deficits." — *J. of the Michigan State Medical Society, October, 1946, per Public Health Economics.*

GENERAL NEWS

Five-Year Dental Health Program of A.D.A.

The Council on Dental Health of the American Dental Association has announced a five-year program with the following goals: (1) The prevention of dental diseases by discovering more effective methods of attacking the unknown causes of such diseases; the support of such intensified programs with adequate funds and personnel. (2) The control of dental diseases by the expansion of community dental programs to provide every child with dental care and dental health education. (3) The provision of additional facilities and uniform standards for dental care by making dental service available in hospitals and health centres. (4) The recruitment of an annual enrolment of dental students to the capacity of all dental schools in order to increase the number of qualified dentists. (5) The adoption of measures to make dental practice in smaller cities and rural areas attractive in order to procure a better distribution of dentists. —*Ft. Review Chi. D. Soc.*

Sugar

Americans are already consuming more refined sugar than is good for their dental health.

Commenting on the current campaign to increase the allowance of sugar to individuals under rationing, Dr. Lon W. Morrey, dental health education director for the American Dental Association, said:

"The 1946 allowance of from 25 to 30 pounds of refined sugar per person plus the considerable amounts of sugar consumed by individuals in the form of candy, desserts, soft drinks, chewing gum and other foods, constitute a definite threat to the maintenance of sound dental health.

"From a dental health standpoint, the American people need less, not more, refined sugars in their diets."

Dr. Morrey pointed out that dental scientists long have agreed that sugar is a major factor in dental caries (decay). At present, he said, dental caries is occurring in children's teeth in the United States at a rate six times more rapidly than dentists are able to provide corrective treatment.

—*A. D. A. News Release*

Do Certain Drinking Waters Favour Dental Caries?

by HENRY KLEIN,

Division of Public Health Methods,

U.S. Public Health Service, Bethesda, Maryland
Condensed from Science, January 3, 1947.

It is now generally recognized that children who consume drinking waters containing from 1 to 2 ppm of fluoride (F) during the first decade of life have a lower experience with dental caries than do comparable children consuming nonfluoride waters.

Data clearly show that the sooner after

birth a child arrives in the fluoride area and begins a continuous exposure to fluoride water, the lower the caries attack rate. From these findings the conclusion is reached that, for migrants, drinking of fluoride waters is associated with lower dental caries attack rates. At the same age, migrants protected most are the earliest to arrive (longest exposed); those protected least are the most recent arrivals (shortest exposed).

In contrast, migrants into the nonfluoride area present a strikingly different picture. Among such migrants, those who are the most recent arrivals have the best teeth (lowest attack rate), while those who have been in the nonfluoride area the longest time have the worst teeth (highest attack rate). These several findings strongly suggest that, just as there are factors in drinking water which favour resistance to tooth decay, there may be factors in drinking water which make the teeth more vulnerable to dental caries. Search for the principles in the nonfluoride waters responsible for the described effects is now actively under way. Superficial examination indicates that the nonfluoride waters in this area are acid enough to require treatment with alkali, and they contain excess iron to such an extent that aeration is required to remove it. Preliminary chemical analysis indicates an unusually high content of nitrates, constituting more than one-half of the fixed residue.

Local Control of Health Program

The House of Delegates of the American Dental Association strengthened and clarified its position for the expansion of community dental health programs during its

annual meeting in Miami, by re-emphasizing the A.D.A.'s position that the community has the right to select its own methods for providing health services for its citizens. The American Dental Association is opposed to the establishment or the elimination of a means test at the national level. To say it another way, the American Dental Association opposes compulsion. It opposes compulsion and a violation of community rights under the Children's Bureau bill. It opposes compulsion and a violation of community rights under the Taft bill. The American Dental Association supports sound health legislation. It has adopted a basic plan for expanding dental health services which does not violate community rights; nor does it advocate compulsion.

—*Jour. A.D.A. Jan. 1, 1947.*

Journal of the A.D.A. Now Published Semi-Monthly

The Journal of the American Dental Association is now being published twice each month. This change was undertaken so that a more current and topical publication can be produced.

New Arthritis Foundation Campaign for \$2,500,000

The newly formed National Arthritis Research Foundation in the U.S.A. has opened a national campaign for \$2,500,000 to finance coordinated study of the causes, treatment and prevention of arthritis and related rheumatic diseases. It is stated that nearly seven million Americans are suffering from arthritis, rheumatism or less common rheumatic diseases.

IN MEMORIAM

Walter T. Jeffs, of Dresden, Ontario, aged 64, died January 11. He was graduated from the Royal College of Dental Surgeons of Ontario in 1905 and immediately opened practice in Dresden.

He was a Past District Deputy Grand Master of Sydenham Lodge A.F. and A.M. He was also a Past First Principal of McNabb Chapter Royal Arch Masons; and treasurer, for many years, of Kent Preceptory and Mocha Temple, London. For thirty years he was chairman of the Dresden Pub-

lic Library Board and a former member of the Dresden School Board. He was a past president of the Kent County Dental Association. He was an active member of the Dresden Lawn Bowling Club and a keen golfer. He was a member of Dresden United Church, of which he was secretary-treasurer of the Trustee Board, and also secretary of the Sunday School.

Dr. Jeffs is survived by his widow, a brother and two sisters.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

FEVRIER 1947

NO 2

Contribution à l'Amélioration du Matériel Chirurgical Employé dans le Traitement de la Pyorrhée Alvéolaire * † (suite et fin)

par JULES THEBAUD

3ième mouvement: A l'aide de l'instrument No 3 l'aiguille traverse la gencive du côté lingual distalement par rapport à l'espace interdentaire, pour la première fois. (Fig. 30.)



FIG. 30

4ième mouvement: L'aiguille est retournée maintenant en direction buccale, traverse la gencive mésialement par rapport au point déjà fait (2mm. à peu près du 1er). Le fil forme ainsi une anse de panier qui sert de *point d'arrêt* ou de frein et empêche la déchirure des tissus. (Fig. 31.)



FIG. 31

6ième mouvement: (important) A l'aide du passe-aiguille No 1 la gencive est maintenue en place et comprimée, (Fig. 33) ce qui permet de la percer à 2mm. en avant du premier point, suivant un même plan horizontal.

5ième mouvement: L'aiguille passe librement à nouveau dans l'espace interdentaire, en direction buccale cette fois. (Fig. 32.)



FIG. 32

* Travail primé du Concours Casgrain-Charbonneau 1946.

† Voir livraisons de novembre, décembre 1946 et janvier 1947.

7ième mouvement: Une fois le lambeau traversé par l'aiguille, l'opérateur engage immédiatement les 2 bouts du fil dans l'ouverture placée près de l'extrémité de l'instrument. (Fig. 34.) L'assis-

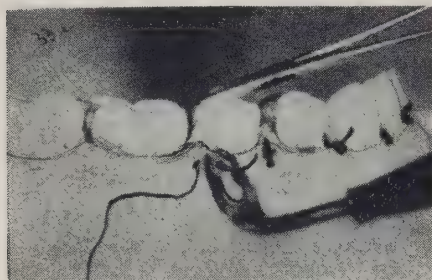


FIG. 33

tant du dentiste accomplit une fonction importante qui consiste à appliquer l'instrument sur la papille buccale en ayant



FIG. 34

soin d'en appuyer l'extrémité contre les 2 dents voisines. (Figs. 35 et 36.)

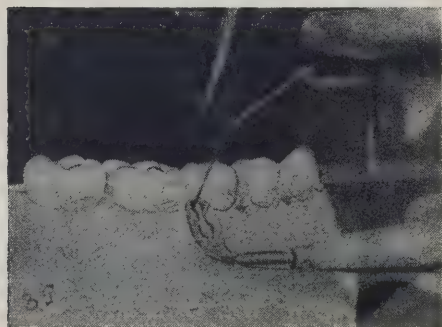


FIG. 35

L'opérateur fait d'abord un noeud chirurgical et ensuite un noeud ordinaire.

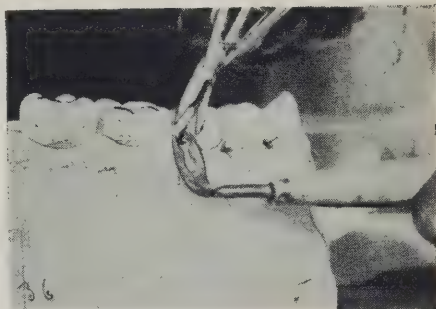


FIG. 36

L'opération de nouer se fait donc dans la première ouverture du "8". (Fig. 37.) La même opération est répétée exactement pour chaque espace interdentaire jusque distalement à la canine.

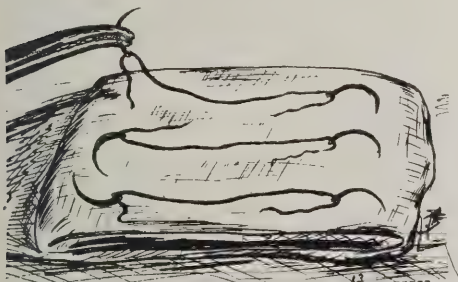


FIG. 37

Suture double à la région antéro-supérieure

Cette technique de la suture double peut être modifiée et même simplifiée, quand il s'agit des dents antéro-supérieures, 3 2 1 | 1 2 3 .

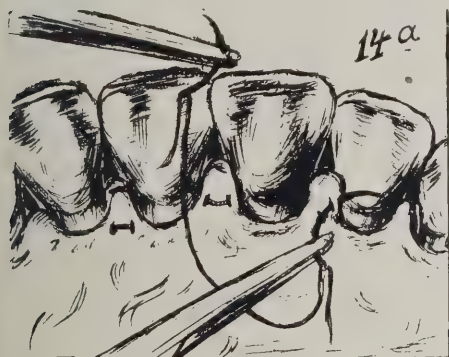
Pour ceci, il convient de préparer à l'avance des morceaux de fil de soie de 4 à 5 pouces de long, en fixant une aiguille à chaque extrémité. Trois ou quatre paires d'aiguilles préparées à l'avance remplissent bien cette besogne.



DESSIN No 13

Pour la région des bicuspides et des molaires, l'emploi de paires d'aiguilles comporte certains inconvénients, à cause du voisinage de la langue et des joues.

Voici les mouvements qui peuvent être exécutés de canine à canine (dessin 14).



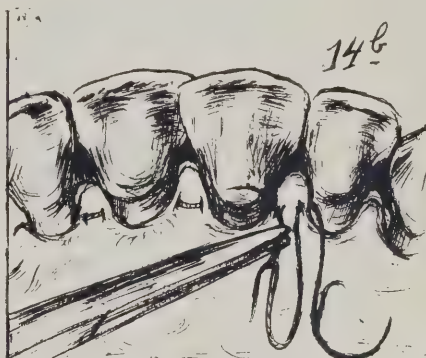
DESSIN No 14a

1er mouvement: En partant du côté palatin, la 1ère aiguille passe à travers la papille interdentaire en un point distal, en se dirigeant labialement. (dessin 14a).

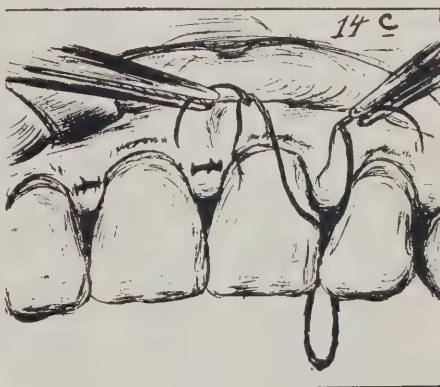
2ème mouvement: La 2ème aiguille suit la même direction, en partant en un point mésial de la papille, à 2mm. du 1er point. (dessin 14b).

3ème mouvement: On fait passer les deux aiguilles librement du côté buccal et d'un trait, entre les dents. (dessin 14c).

4ème mouvement: On les fait traverser. Les deux points marqués par le passage des aiguilles sont à peu près distants de 2mm. (dessins 14d, 14c).



DESSIN No 14b

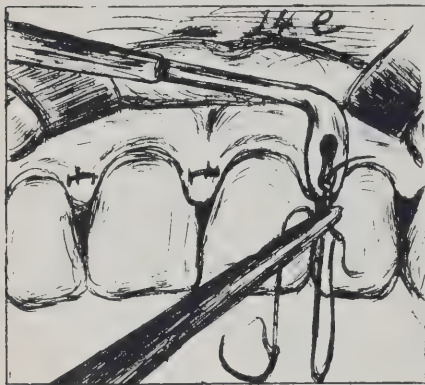


DESSIN No 14c



DESSIN No 14d

5ème mouvement: Les noeuds se pratiquent ensuite, à l'aide des passe-aiguilles No 2. On peut aussi se servir du No 3 à cette occasion. (dessin 14f).



DESSIN No 14e

Ayant assisté à de nombreuses opérations, il nous a été donné de remarquer que, la plupart du temps, on commence à préparer les points de suture en débutant par le côté buccal, pour perforer, en second lieu, la muqueuse du côté interne: pour la raison bien simple que



DESSIN No 14f

la routine nous laisse croire qu'il est plus facile de commencer par la région que nous dominons et que nous manipulons plus aisément, nous promettant de nous occuper de la partie moins accessible, qui est le côté lingual, en second temps. D'ailleurs, c'est de cette façon que les auteurs indiquent la façon courante de suturer (dessin 10). Mais, l'expérience prouve que la perforation de la muqueuse à la partie linguale est

très difficile quand l'aiguille est dirigée de l'extérieur à l'intérieur. Cependant, pour cette région, l'introduction de l'aiguille courbe se fait plus aisément de l'intérieur à l'extérieur, c'est-à-dire du côté lingual vers le côté buccal.

La pratique courante (direction bucco-linguale) s'acquiert malheureusement chez les débutants, qui, à la longue, n'arrivent pas à se défaire de cette routine.

C'est à leur intention que nous nous proposons de décrire les différents mouvements pour la confection de ces points de suture simple en observant un certain nombre de mouvements, sans lesquels, l'opération de la suture conduit à l'insuccès.

Comme il sera démontré plus loin, la suture double en "U" pour la partie postérieure et la région antéro-supérieure donne de meilleurs résultats que la suture simple ou ordinaire. Mais notre opinion ne peut être partagée par ceux-là qui pratiquent la suture "simple", considérée par eux comme un excellent "modus operandi" que s'ils emploient notre méthode, même à titre d'essai.

Cependant quand les papilles interdentaires sont très développées, nous recourons à l'ancienne méthode de la suture simple, qui se fait comme il a été décrit pour la région antéro-inférieure: (dessin 11b).

1er mouvement: Pour éviter de forcer le fil entre les dents, comme il se fait au cours d'un nettoyage, nous faisons passer l'aiguille dans l'espace interdentaire, de l'extérieur à l'intérieur, lui laissant ainsi libre jeu au cours des mouvements qui suivront. (dessin 12a).

2ième mouvement: L'aiguille traverse maintenant la papille linguale en se dirigeant du côté externe ou buccal. (dessin 12b).

3ième mouvement: L'aiguille dégagée de la muqueuse traverse librement l'espace interdentaire toujours en direction externe. (dessin 12c).

4ième mouvement: Pendant que le passe-aiguille maintient la muqueuse gingivale au côté buccal en position, l'aiguille perce la papille et sort dans la 1ère ouverture du passe-aiguille. (dessin 12d).

5ième mouvement: Après avoir déplacé l'instrument une première fois, les deux bouts du fil bien tendus sont engagés par l'extrémité du passe-aiguille dans la première ouverture. (*dessin 12e*).

6ième mouvement: Le passe-aiguille compressant la papille entre les deux dents voisines, les noeuds sont pratiqués dans cette position stable. (*Fig. 38*).



FIG. 38

Comparaison entre les deux modes de suture basée sur des expériences

Nous avons dit que la suture double en forme de "U" présente un avantage marqué sur la suture ordinaire parce que, lingualement, elle forme un point d'arrêt, ce qui évite le déchirement de la muqueuse et assure la stabilité des tissus. Elle remplit le rôle d'une ceinture dont la boucle serait le noeud situé du côté buccal. Il n'est pas nécessaire de serrer cette "ceinture" jusqu'à déterminer un étranglement des papilles. (*Fig. 27a*).

Ce que nous recherchons, au juste,

c'est le contact et le plus souvent, le rapprochement des deux muqueuses, et aussi une garantie contre les mouvements de la langue et de la joue. Les espaces interdentaires postérieurs se prêtent bien à ce genre de suture. Tandis que la suture simple ou ordinaire convient mieux pour la région antéro-inférieure à cause de la petite dimension des papilles gingivales.

La suture double doit être pratiquée à la base des papilles, à quelques millimètres de leur sommet. (*dessin 11b*). Elle est sans doute moins facile à faire que la suture simple, mais pour peu qu'on veuille suivre la technique indiquée les résultats sont satisfaisants.

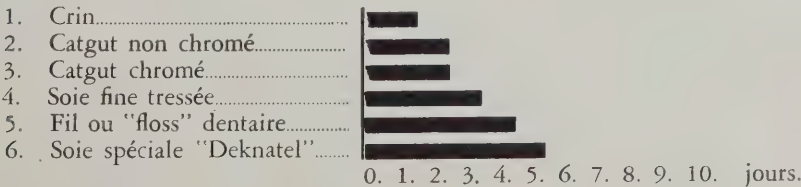
Les expériences, que nous avons faites permettent de relever des observations prises au hasard des interventions.

Au cours de 182 opérations (curetage radical modifié) limitées au 1/3 des arcades, il a été pratiqué 427 points doubles et 231 points simples, de façon à rendre la comparaison plus facile.

Avant cette série de 182 opérations il a été pratiqué un nombre assez important de points de suture à la muqueuse gingivale par la méthode ordinaire, sans instrument et avec le crin. Et c'est précisément à la suite de nombreux échecs que l'idée nous vint de chercher un moyen de nous mettre à l'abri de ces aléas trop fréquents. Le crin, ayant été mis de côté, il y a eu lieu de faire des expériences dans le but de signaler les meilleures substances à ligature pouvant être utilisées à l'aide de ces instruments, après cette sorte d'intervention.

Au sujet de la valeur des différentes ligatures employées comme matériel à suture, le tableau suivant indique notre appréciation personnelle:

Degré approximatif de fermeté et de durée des différentes substances employées pour la suture des gencives après le curetage radical modifié.



Comme on le remarque, après la soie "Deknatel", le fil dentaire ou "floss" semble garder sa résistance plus longtemps que les autres fils, sans doute parce qu'il est ciré.

La supériorité de la suture double, en "U", sur la suture simple ou ordinaire, ayant été facilement trouvée, même en appliquant les deux méthodes, sans l'aide d'aucun autre instrument que la pointe d'un hémostate, comme on le fait couramment, nous avons cherché ensuite à déterminer la différence, qui existe, au point de vue de la stabilité et de la durée, entre les deux techniques, en employant nos passe-aiguilles.

Pour mieux établir cette parallèle, nous avons eu soin de pratiquer, après une série d'interventions, des points simples et des points doubles sur les mêmes parties de la gencive opérée, c'est-à-dire, sur le même tiers des arcades, et, dans chaque cas, nous avons employé la même espèce de ligature.

Dans une moyenne de 75% des cas opérés (182), la guérison des tissus gingivaux s'est faite sans aucune complication entre le 10ème jour et le 15ème jour. Dans 10% de ces cas, la guérison a été lente en raison de certaines circonstances locales, telles que l'état pathologique avancé des clapiers et le manque de précaution de la part du patient durant les deux premiers jours, qui suivent l'intervention. Certaines causes mal définies, ajoutées à ces dernières, ont donné lieu à de petites complications, telle que la périécimentite, dans une proportion de 5%.

Conditionnement des tissus au moyen de ciments antiseptiques ou de "packs"

Nous savons dans quelle mesure l'application des "Packs" à base d'oxyde de zinc, de résine et d'eugénol active la guérison des tissus après la gingivectomie, grâce au rôle de protection et à l'action antiseptique que ces ciments

Voici les résultats obtenus dans 6 cas choisis au hasard.

A. Suture simple sans instruments spéciaux. (Soie "Deknatel").	Cas:	Fermeté:	Relâchement:	Durée totale:
	No 33	1 jour	au 2ème jour	3 jours
	No 44	2 jours	au 3ème jour	4 jours
	No 63	1 jour	au 2ème jour	3 jours
	No 68	1 jour	au 2ème jour	3 jours
	No 69	36 hrs	au 2ème jour	3 jours
	No 70	2 jours	au 3ème jour	4 jours.

Suture double en U.

B. Suture double avec instruments spéciaux. (Soie "Deknatel"). (Nouvelle technique):	Cas:	Fermeté:	Relâchement:	Durée totale:
	No 46	3 jours	au 4ème jour	5 jours
	No 48	3 jours	au 5ème jour	6 jours
	No 51	3½ jours	au 5ème jour	7 jours
	No 54	2½ jours	au 4ème jour	5 jours
	No 64	3 jours	au 4ème jour	6 jours
	No 66	3 jours	au 4ème jour	6 jours.

Dans certains cas, les points simples étaient en nombre égal avec les points doubles, ce qui indique que le point simple en général, même quand il est pratiqué au moyen d'instruments spéciaux, ne reste ferme que pendant 2 à 3 jours. Tandis que la suture en "U" conserve sa fermeté environ 4 jours et ne se relâche entièrement qu'entre le 5ième et le 7ième jour.

remplissent pendant une période assez longue, de six à dix jours.

Après la suture des papilles gingivales nous recourons toujours à l'emploi de ces "Packs" que nous appliquons après un asséchage sommaire entre les dents, en ayant soin de couvrir entièrement les points de suture. Pour mieux assurer l'adhésion de ces ciments, nous les appliquons séparément sous forme de

petits cônes du côté lingual d'abord et du côté buccal ensuite, et nous obtenons leur cohésion en exerçant une certaine pression des deux côtés.

Cette façon de protéger les tissus empêche l'introduction des débris alimentaires, favorise l'élaboration rapide du caillot sanguin, l'immobilisation des papilles interdentaires, et la stabilité "in situ" des ligatures. Sans l'application de ces ciments de protection nous n'aurions pas obtenu d'aussi bons résultats, avec notre méthode de suture (*dessin 15*).



DESSIN 15

Précautions à prendre

1^o) l'emploi des passe-aiguilles n'implique pas l'idée que l'on doit nécessairement produire trop de traction sur la gencive, ce qui amènerait forcément des petites déchirures.

2^o) le passage de l'aiguille à travers le lambeau interne, dans la région des bicuspides requiert un peu plus d'attention, à cause de la densité des tissus et de la courbure des arches.

3^o) le point d'arrêt du côté interne doit avoir au moins 2 millimètres; autrement, la ligature pourrait étrangler ou couper les papilles interdentaires.

4^o) le temps constituant un facteur très important pour le praticien qui se livre à cette sorte d'intervention, il est bon de retenir que la confection des points de suture est un travail de patience et qu'il faudrait compter, à peu près 3 à 5 minutes pour chaque point, chaque opération étant limitée au tiers des arcades.

5^o) La manipulation scientifique de la muqueuse gingivale ne se terminant pas à la phase de la suture, mais plutôt

à celle des soins post-opératoires, il est opportun d'appliquer buccalement sur la gencive aussitôt après l'intervention des petites compresses de gaze imbibée de solution physiologique tiède, à des intervalles de 2 minutes, pendant 6 à 8 minutes.

Ce procédé de vasodilatation qui vient contrecarrer l'effet de l'épinéphrine entrant ordinairement dans la composition de la solution anesthésique employée, favorise l'afflux normal du sang, si nécessaire à l'organisation du caillot sous-muqueux. La gencive alors bien asséchée est prête à mieux supporter le contact des ciments de protection.

6^o) L'observance d'une diète molle pendant les deux premiers jours après l'intervention constitue une garantie de plus à la stabilité des tissus et à l'intégrité du caillot sanguin.

Toutes ces précautions, secondées par l'action directe des antiseptiques, sous forme de collutoire à l'arsenobenzol et au metaphen, ou sous forme d'attouchement au superoxol, pendant les 6 premiers jours qui suivent l'intervention, sont susceptibles de donner tout le succès désiré.

Un Poinçon

Même en pratiquant un point à l'aide du passe-aiguille, il arrive parfois qu'un relâchement se produit, parce qu'en faisant le noeud, le fil ou la ligature s'écarte de la muqueuse. Pour faire face à cet inconvénient, nous recommandons

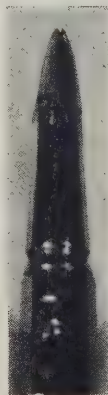


FIG. 39

l'emploi d'un poinçon qui permet de compresser le fil ou la ligature contre la muqueuse au moment de façonner le noeud chirurgical. Par l'échancrure que cet instrument présente à son extrémité, on peut refouler le fil vers les tissus sans les déchirer. (Fig. 39).

Autres usages des passe-aiguilles en chirurgie buccale

Ces instruments sont une aide précieuse pour la suture de la muqueuse gingivale après l'alvéolectomie, où il est de règle de pratiquer plusieurs points de suture. Ils permettent d'obtenir une meilleure stabilité des tissus et garantissent ainsi, d'une façon sûre, l'union des deux parties de la muqueuse par première intention. Dans ce but, on peut employer à l'avance n'importe lequel des 3 passe-aiguilles.

De même après l'ablation des kystes ou après l'apèctomie, quand la muqueuse, qui a été préalablement écartée doit être maintenue en place au moyen de suture, les "fermetures" sont avantageusement obtenues au moyen de ces instruments. Le passe-aiguille universel



DESSIN 16

(no 3) semble mieux s'adapter à cette besogne. (dessin 16).

Conclusions

En appréciant, à leur juste valeur, les méthodes couramment employées en périodontie clinique, à cause de leur efficacité, nous sommes de ceux là, qui croient que le périodontiste doit être en mesure de recourir à chacune de ces méthodes, suivant l'évolution des cas qu'il traite, c'est-à-dire, pouvoir recourir au curetage sub-gingival, à l'électrocoagulation, à l'application de l'oxygène atomique ou à l'emploi du sulfure de sodium à la phase de début de la périementoclasie; et à la gingivectomie ou au curetage radical modifié quand il est en présence de clapiers profonds.

Mais nous pensons par dessus tout, et cela est même une conviction, qu'il n'y a pas lieu de délaisser la méthode du curetage radical, vu qu'elle a subi des modifications qui rendent son application plus aisée et moins aléatoire. Nous croyons que son emploi au lieu d'être limité aux dents antérieures, doit être étendu jusqu'aux premières molaires et qu'il y a lieu d'y apporter encore certaines améliorations, afin de la rendre plus simple et plus rationnelle.

C'est dans cet esprit que nous avons essayé d'apporter une pierre à l'édifice, qui doit être construit.

270 Av. Outremont, Montréal.

BIBLIOGRAPHIE

1. Tribuna Odontologica, (Buenos-Aires) 1930-39.
2. O. Kirkland, Dental Digest, Jan. 1936, J.A.D.A. 1942.
3. A. Zentler, J. Dental Research 2; 17, 1920.
4. B. Gottlieb, J. Acad. Of Periodontology, Jan. 1946.
5. B. Orban, J.A.D.A. 1941.
6. D. G. Dickson, J.A.D.A. pp. 1438, 1942.
7. H. Kaplan and Mann, J.A.D.A. pp. 1477, 1942.

LES DENTS ET LA GEOGRAPHIE

Deux dentistes de l'Institut de Recherches Médicales de la Marine Américaine ont fait une constatation surprenante. Quoique les états du nord aient plus de dentistes, les habitants des états du sud ont de meilleures dents. Le Commandant Carl A. Schlack et le Lieutenant James E. Birren ont basé leur exposé sur les dossiers dentaires de 69,584 marins. Quant au nombre de cavités et au nombre d'obturations, par individu, les Etats de la Nouvelle-Angleterre sont les plus mal partagés. Les Etats qui présentent les meilleures statistiques sont ceux du sud. Pourquoi?—Opinions émises: 1) les Nordiques mangent plus de sucre; 2) l'eau du Texas (ou des Etats environnants), contrairement à celle du Nord, est riche en fluorure, agent, qui est supposé être un antidote à la carie dentaire.



PAGES EDITORIALES

COMITE DE REDACTION

Président:

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D.

Assistant:

ARMAND FORTIER, D.D.S., I.D.S

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., I.D.S.
397 est Boul. S.-Joseph, Montréal

COTISATION A L'A.D.C.

Depuis la réunion plénière des délégués des provinces du Canada de l'Association Dentaire Canadienne, à Toronto, en mai dernier, plusieurs Collèges de différentes provinces (Ontario, Nouvelle-Ecosse, Ile du Prince-Edouard, Alberta, Manitoba, Nouveau-Brunswick, Saskatchewan, Colombie Britannique) ont décidé d'augmenter leur octroi annuel à l'A.D.C. La contribution de chaque dentiste canadien à son organisme national était jusqu'en ces derniers temps de quatre dollars par année. Cette somme est perçue par le Collège des Dentistes de chaque province, en même temps, que la cotisation régulière et envoyée au comité central de l'A.D.C.

Quelques provinces augmentent leur octroi d'un dollar, par dentiste; d'autres (Manitoba—\$4.00; Nouveau-Brunswick—\$2.00) haussent d'avantage l'aide financier, qu'ils donnent à l'Association.

Ces organismes provinciaux veulent reconnaître, par là, le bon travail accompli par l'A.D.C. dans tous les domaines, ou elle a formé des Comités pour étudier certaines questions regardant toute la profession et formuler des recommandations pour la solution de ces problèmes. On a qu'à lire les rapports présentés par chaque président de Comité, à la session générale de mai dernier pour se rendre compte de la besogne accomplie au sein de notre Association. Chaque rapport est accompagné de recommandations, que le Comité Exécutif doit mettre en pratique. Le Comité Exécutif accueille toutes ces suggestions, mais, souvent ne peut les réaliser, faute des fonds nécessaires.

Il serait trop long de détailler ces embarras financiers de notre Association; renseignons-nous auprès de nos confrères, qui sont mêlés de près aux activités de l'Association. Ils vous diront qu'elle doit avoir une base financière solide pour accomplir d'avantage dans l'intérêt de la profession dentaire canadienne.

La province de Québec se doit d'imiter les autres provinces et d'augmenter son octroi annuel à l'A.D.C. Nous avons besoin d'une organisation professionnelle centrale, forte et solide, pour veiller aux intérêts fédéraux.

GERARD DE MONTIGNY

DON DE LA FONDATION KELLOGG A L'UNIVERSITE

Dans un des numéros du printemps dernier du Journal, nous publions, comme nouvelle, la visite du Docteur Blackirby, de la Fondation Kellogg et nous disions que la Faculté de Chirurgie Dentaire entretenait de grands espoirs fondés sur l'intérêt que portait cet organisme à nos activités universitaires.

Ces espérances sont pleinement réalisées, aujourd'hui, puisque la Faculté de Chirurgie Dentaire va recevoir d'ici trois ans la somme de \$75,000.00 de la Fondation Kellogg, pour l'aider dans l'organisation de cours de perfectionnement. Ces stages post-universitaires sont mis à la disposition des membres de la profession dentaire de tout l'Est du Canada et serviront à les mettre au courant des perfectionnements de la science dentaire.

Durant la première année, des cours seront donnés en Prothèse, Endodontie, Chirurgie et Anesthésie et Orthodontie, à quatre reprises. Cette aide financière permettra à la Faculté d'augmenter son personnel enseignant, d'outiller ses laboratoires et d'améliorer son instrumentation.

Les élèves réguliers profiteront aussi de ce don de la Fondation Kellogg, en travaillant dans de meilleures conditions pédagogiques et matérielles.

Cet événement important dans l'existence de notre Faculté apporte une autre preuve de sa vitalité et de son progrès.

G. DE M.

PENICILLINO-SENSIBILITE DE LA FLORE BUCCALE

Concernant la pénicillino-sensibilité des bactéries buccales, le Prof. L. P. Garrod rapporte les constatations suivantes:

"Mes observations m'ont conduit à la conclusion que la grande majorité des très nombreuses espèces bactériennes, que l'on trouve dans la bouche, sont pénicillino-sensibles. Ceci est d'une importance pratique capitale, car il en résulte que les infections provenant de la cavité buccale, ou en rapport avec celle-ci, sont, en général, justiciables du traitement pénicillinique, tout comme celles en provenance de l'intestin ne le sont pas, les espèces qui s'y trouvent étant, pour la plupart, résistantes."

"La Pénicilline en Chirurgie Bucco-Dentaire"
par Cranston Low, *The British Dental Journal*,

7, 1946

L'information Dentaire, Novembre 1946.

IN MEMORIAM

LE DOCTEUR STANISLAS GAUDREAU

par PAUL E. POITRAS, Montréal

Le docteur Stanislas Gaudreau est mort à Québec, le 30 octobre 1946. Dentiste renommé depuis cinquante-et-un ans, il avait fait beaucoup, non seulement pour la chirurgie dentaire mais aussi pour le développement des sciences naturelles chez les Canadiens-Français.

Le travail était pour lui un réconfort, sa vie entière l'a prouvé; toujours il fut à l'oeuvre, aimant se dépenser au service de ses contemporains.



A l'été 1936, sur son yacht le "Pélerin", accompagné de son beau-frère, le docteur D. A. Déry et de quelques membres de la "Société Provencher d'Histoire Naturelle de Québec" le docteur Gaudreau alla aux Ilets Jérémie, à l'ouest de Baie Comeau; le groupe, hôte de Pierre Fortin, une des rares personnes à avoir son domicile à cet endroit, trouva, en

explorant les falaises et les anses, une grande croix aux extrémités fleurdelysées, portant la date de 1781, qui autrefois couronnait le clocheton de la première chapelle de cette mission, célèbre au temps des missionnaires jésuites de l'ancien "Domaine du Roy". Ces chercheurs apportèrent à Québec, avec la croix, d'autres souvenirs précieux de ces temps passés.

Tous ces objets sont maintenant visibles au Musée Provincial, grâce au docteur Gaudreau.

Celui-ci devint propriétaire de l'Île-aux-Pommes vis-à-vis l'embouchure du Saguenay, en 1927; le panorama y est grandiose, l'île possède des havres magnifiques, des sites pittoresques où les oiseaux de toute nature, oiseaux de grève et de mer y font des séjours prolongés: maubèches, alouettes, pluviers, canards, eiders, etc., que le nouvel acquéreur de l'île protégea par tous les moyens à sa disposition.

Ces souvenirs, relatés par Damase Potvin, rappellent l'homme intéressé à l'histoire naturelle de sa province; il ne faut pas oublier le dentiste, car il a été dentiste dans l'acception propre du mot; il fut licencié de l'Association, le 18 juin 1895, à l'époque héroïque où la chirurgie dentaire, en pleine évolution, était considérée par le public et les membres des professions libérales comme un métier ou mieux un art. Il voulut, dès le commencement de sa carrière, réagir contre cette fausse conception; c'est pourquoi nous le voyons placé au premier rang de ses confrères, par son travail, qui lui permit d'exercer une grande influence sur tous ceux qui pouvaient avoir besoin de ses lumières.

Il avait fait ses études à l'Académie Commerciale et à l'Ecole normale de Québec pour ensuite enseigner quelque temps à Chapleau. Chez lui, rien n'était perdu: la pédagogie, qu'il avait apprise dans sa jeunesse, lui fut utile lorsque le doyen de la faculté de médecine de Québec, le docteur Arthur Rousseau, convaincu de la nécessité pour les étudiants d'apprendre les maladies de la bouche, le nomma, en 1922, avec le docteur

Arthur Langlois, professeur de pathologie buccale. C'était une innovation, suivie quelques années plus tard par l'université de Toronto.

En 1928, il fut le président du premier congrès des "Chirurgiens-Dentistes de langue française de l'Amérique du Nord", tenu à Montréal.

L'Université Laval, en 1943, le créait professeur émérite; antérieurement l'Université de Montréal l'avait élevé à la dignité de docteur en chirurgie dentaire (Honoris causa).

Pendant des années, sans rémunération, il fut le dentiste des orphelins de l'Hospice des Soeurs de la Charité de Québec. Le docteur D. A. Déry le remplace avec honneur.

L'esprit et le talent du docteur Gaudreau auraient pu lui mériter toutes les distinctions qui font l'ambition de certains hommes; mais sa modestie et son amour de l'indépendance lui firent préférer les agréments de la science aux honneurs de la célébrité. Il évitait tout ce qui pouvait exciter l'envie. La crainte de déplaire le rendait fort prudent. Il était le plus sincère et le plus constant des amis. Jamais personne ne s'est plaint de lui. Aucune raison, aucun prétexte ne l'écartaient de ceux qu'il aimait. Il connaissait leurs défauts et leur en faisait sentir les inconvénients, afin de leur aider à s'en corriger. Tous ceux qui l'ont connu pleurent sincèrement sa mort.



COURS DE PERFECTIONNEMENT A L'UNIVERSITE DE MONTREAL

Groupe de dentistes, qui ont suivi le premier cours de perfectionnement en Chirurgie et Anesthésie, à la Faculté de Chirurgie Dentaire de l'Université de Montréal, cours donné sous les auspices de la Fondation Kellogg.

On remarque de gauche à droite, première rangée: les Drs Armand Chaussé, Montréal; Charles Bissonnet, Montréal. Deuxième rangée: les Drs J. Pollock, Montréal, Paul Riverin, Chicoutimi, René Roy, la Malbaie; Lucien Reeves, professeur, H. Provencher, Rivière-du-Loup, Gérard de Montigny, professeur et directeur du Cours, Benoit Pariseau, Montréal; Jean Desjardins, Montréal; J. E. Lafleche, Lac Mégantic; Paul Trépanier, Montréal.



WINTER IN MANITOBA

★

ANGELS IN DISGUISE

One day when I was sad you came along
And flashed a smile on my loneliness,
The while you sang a happy little song
That somehow seemed to lighten my distress;
'Twas only for a moment that we met,
A moment that was fraught with mystery,
I never spoke a word to you, and yet,
Your smile still lingers in my memory.
I sometimes think an angel in disguise
Is sent by God to walk our city streets,
An angel with compassion in his eyes
For every melancholy soul he meets,
An angel who disperses clouds and rain
And lifts the heavy burden of our pain.

—T. E. B.

(From the *Chicago Tribune*, per
Dental Assistant.)



ROY GILMOUR ELLIS, D.D.S., M.Sc. (Dent.), F.A.C.D.
Toronto, Ontario.

Appointed Dean of the Faculty of Dentistry, University of Toronto,
effective July 1, 1947.

Member of the Faculty Staff since 1931.

Professor of Operative Dentistry and Director of the Dental Clinic
since 1944.

Member of the University Senate for 10 years.

Chairman of the Associate Committee on Dental Research,
under the National Research Council of Canada.

Chairman of the Research Committee of the Canadian Dental Association.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, MARCH, 1947

NO. 3

THE DENTIST AND HIS HEART

by R. KENNETH THOMSON, B.Sc., M.D., Edmonton, Alberta

IN THE words of Dr. Paul White, "Heart disease, or rather cardio-vascular disease, has become the chief public health problem of our day." Ranking as the leading cause of death it has been widely but rather crudely publicized and an unwarranted fear of heart disease has sprung up and swept the country.

Although it is true that recent and accurate statistics show a high incidence of cardio-vascular deaths, three very important considerations counter-balance in large part the seriousness of the figures. Firstly, cardio-vascular disease is not one but a multitude of different diseases, most of them not related except as they involve the heart and blood vessels. Secondly, the increase is in the older age groups. There has been an actual decrease in heart disease below the age of 25. An old person must die eventually and perhaps heart disease is as good as any from which to suffer. Finally, many grades of heart disease, contrary to tradition, are mild and compatible with longevity and full of activity.

The first aspect to be considered is total frequency. This is difficult to assess because community statistics of real value are scarcely available anywhere in the world. We depend largely

on life insurance statistics. Value is also received from the figures of school, military and routine health examination and from hospital and mortality records. In the North Eastern United States it is estimated that one per cent of children of school age have heart disease. In San Francisco where rheumatic fever is less, this figure is 0.37%. Routine examination of approximately 38,000 students entering the University of Wisconsin revealed an incidence of heart disease of 1%. The middle age statistics tend to raise the overall level of heart disease but with them it has been estimated that about 2% of the people of the United States have heart disease of sufficient severity to produce signs and symptoms.

As a cause of death heart disease has assumed greater and greater proportions and has outstripped tuberculosis, pneumonia and malignancy, the other three most common fatal diseases. This increase which is both absolute and relative is due to several factors.

1. To accurate cardiac diagnosis.
2. Changing fashions in recording cause of death. For example, coronary heart disease was formerly classed as an arterial disease; Bright's disease is

Editor's Note:—Dr. Thomson was graduated from the University of Alberta in 1931. After leaving the University he spent several years in post-graduate study both on this continent and in England.

He served throughout the entire war in the Royal Canadian Navy attaining the rank of Surgeon Commander.

He is now practising his specialty of Internal Medicine in Edmonton.

less frequently listed as the cause of death because now it is often shown as hypertensive heart disease; death which was often attributed in the past to "old age" is now listed as death due to cardio-vascular disease.

3. There has been a reduction in the incidence of deaths due to typhoid and tuberculosis with a consequent increase in the ratio of heart disease deaths.

4. The actual increase in heart disease is due in part to the decrease in other diseases. Formerly death in early life was common as the result of such diseases as dysentery, diphtheria, typhoid and pneumonia. Now these individuals live to die of rheumatic, syphilitic, hypertensive or coronary heart disease.

This increase in deaths due to heart disease may be a source of congratulation, rather than dismay, for it means that life is now being limited by the degenerative lesions of old age rather than by the infections of youth.

It is interesting to note that the life expectancy in the United States has more than doubled in the past 150 years. In 1790 the average life was 30 years. In 1939 it was 62.6 years for men and 66.4 for women. In some areas of the world where infection and infant mortality are high expectancy is in the 20's, which is almost about what it was in Europe in the Middle ages or Roman times.

However, despite the wonderful increase in average life during the past century, the life expectancy of those who pass 60 is no greater now than it was years ago. The longest lived centenarians appear to be those, with a good family history of longevity, who have lived active physical lives in rural areas.

Some other relationships other than age are climate, race heredity, and social and financial status. It is generally conceded that a mild dry climate is most suitable from a cardiac point of view. It is of interest here to note in New Zealand the average age is

about two years greater than in the United States. The intense cold of certain periods of our northern winters is not favourable for cardiac disease. Good but not rich foods are of value and moderate exercise and healthful and uncrowded living conditions tend towards health from a general and cardiac point of view.

Your major question is undoubtedly "Where does the dentist stand in these relationships? Is his occupation one which is attended by hazards which make the occurrence of heart disease likely?" You have gained the impression that your colleagues have so frequently developed coronary sclerosis at an early age and that many have died young. You wonder then if it is the posture of the dentist, the fatiguing type of work or his habits which are responsible.

Firstly the habits! Available information does not indicate that alcohol is directly deleterious to the heart. It will, of course, produce secondary reactions, with increase of heart rate and palpitations, which are liable to be upsetting to anyone who is at all apprehensive. These symptoms are referable to the heart but not indications of heart disease *per se*. Smoking is another habit which has been labelled as a cause of heart disease by many and denied by just as many. It also may lead to rapid heart action or to extra systoles but the consensus appears to be that it does not cause heart disease. Recent evidence however has pointed a finger at tobacco in that the incidence of death in people with cardio vascular disease appears to be higher among those who are heavy smokers.

Medical men have also had the feeling that members of their profession were dying more frequently and at a younger age from heart disease, but a recent study by Dr. Spies does not indicate that they vary greatly from the average population. No complete analysis of dental surgeons has been made but there is nothing to indicate

that they would be different from the medical profession, and there is nothing to indicate that the dental surgeon's work is particularly destructive to the heart musculature or vessels.

We do know that marked curvature of the spine with alteration of the rib cage can produce a mechanical embarrassment to the heart. We also know that the dentists' occupation carries with it postural strain and frequently pains due to that strain, but there is no evidence that this occupational disability ever leads to a sufficient spine or rib cage deformity to produce mechanical heart embarrassment.

Having tried to disabuse your minds of the idea that the practice of dentistry makes you liable to heart disease, I would like to mention the existence of symptoms which are often referable to the heart. Since they are referable to the heart they are in a sense important and certainly command our attention and require explanation.

Dentistry is meticulous and painstaking, calling for concentration and skill. There are frequently the added difficulties of poor light, and muscle fatigue from cramped position and upright posture. There is a tension on the part of the patient with a fear of pain; there is an attempt on the part of the operator to avoid that pain and its sequelae of restlessness or displeasure on the part of the patient. There is moreover the constant attention to detail which is necessary to produce good results; and of course the constant desire for good results which will be appreciated by colleagues as well as the patient. These days there is the added strain of trying to work that added patient into an already crowded appointment book, and with that the

fear of giving something less than the best attention to the patient.

All of these things are productive of strain or tension—which manifests itself both physically and mentally. In dental surgery there are always uncertainties and irritations which lead to fear and anxiety. This is present in all human beings though in some the emotional response to stresses and strains is greater than in others.

As mentioned, these emotions have a physical as well as a mental side. Acting through the autonomic nervous system we find responses in the heart, the breathing, the gastro intestinal tract and the secretory system. These responses may be rapid heart action, rapid breathing, undue sweating or tremor of the limbs and are in many respects similar to the fear reaction which may occur in all animals.

The importance to us is that we are often aware only of the abnormal sensations of palpitation, weakness or tightness in the chest and without due consideration of the possible cause we are apt to think "It's my heart!" This of course produces another worry and still further physical manifestations of the worry. We are all aware of the acute physical response to some major trial or mishap, but we are often unaware of the fact that we are working under constant minor tensions or strains and so we incorrectly interpret the physical symptoms which are bound to be associated with them.

Your heart won't suffer, but your peace of mind is disturbed and I would recommend to you any change in office hours, routine or conduct which would lessen the strains of life, or which would make you less unpleasantly responsive to them. Too full an appointment book may not be the best way to lead a full life.

Every man's work, whether it be literature or music or pictures or architecture, or anything else, is always a portrait of himself; and the more he tries to conceal himself, the more clearly will his character appear in spite of him.—Samuel Butler

INTERCEPTION OF MALOCCLUSION*

by ROBERT W. MARSHALL, D.D.S., Toronto, Ontario

"Dentistry for children is not an elementary phase of our profession. It is fundamentally important in that it offers the greatest field for practice of preventive measures often requiring meticulous skill which is demonstrated so favourably when exercised on adult patients. It is scientific to a degree that is unsurpassed in any other phase of operative dentistry."

E. CARL MILLER

THE purpose of dentistry as a profession has always been to maintain the natural teeth in health, comfort, function, and good appearance. The achievement of this purpose has been attempted, until recently, solely through the restoration of broken down and destroyed dental structures. When reference is made to surveys carried out throughout the country, is there any doubt that we have failed?

Yet the purpose of dentistry remains the same today. It is our mode of achieving that purpose, then, that is at fault. True, we must continue to do restorative work, but only if we strive to swing the pendulum of progress gradually away from repair and restoration toward prevention and correction, can the dental profession be honestly sincere in its purpose.

Preventive and corrective measures must of necessity begin with the young child. It is the opinion of the writer that, if every child could reach an age where he or she would become interested in dental care as an individual, with a full complement of teeth in correct occlusion and alignment, a wonderful contribution to human happiness would be achieved. On the other hand, if a child is allowed to mature without adequate dental care, then self-in-

terest may be too late, or indeed may never occur at all. It is felt then that there is no greater quest in dentistry than the prevention and interception of maldevelopment of the dental arches and all that this may entail.

CAUSES

If we are to approach the treatment of malocclusion rationally and successfully, we must first determine and examine the causes. Lischer (1), in simplifying the classification of factors contributing to malocclusion, recognizes two basic divisions which he terms the intrinsic and extrinsic groups.

(a) The intrinsic group includes all factors that are inherent in the formation of the organism and, associated with other causes, determines the type of deformity.

(b) The extrinsic group includes all the environmental or acquired injurious influences arising during the life of the organism; and the extent to which the growth, development, and function may be disturbed depends much upon latent factors in the intrinsic group.

There are three main subdivisions in the intrinsic group. These are (1. redundancy of teeth, (2. congenital absence of teeth, (3. specific type malocclusions which seem to prevail as family characteristics. The first two, while not preventable, may be easily treated in most instances if the condition is noted early and study is given to the case. The latter, however, presents a different problem in that the underlying causative factors are not discernible.

The extrinsic group embraces many and varied subdivisions arising from

(1) Lischer, B. E.,—Read before the section on orthodontics at the Midwinter Meeting of the Chicago Dental Society, Feb. 22, 1944.

* Fifth Year Thesis, 1946, Faculty of Dentistry, Univ. of Toronto.

environmental or acquired causes. Among these are habits, dental caries, defective operative restorations, premature loss of deciduous teeth, and over-retention of deciduous teeth.

The writer proposes to review these causes, citing examples and illustrations both from clinical observation and current literature, giving case histories and treatment procedures wherever possible.

INTRINSIC FACTORS

Redundant or Supernumerary Teeth

A purely intrinsic cause of malocclusion occurring during both the deciduous and permanent dentitions is redundancy of teeth. These teeth, usually malformed though occasionally normal in appearance, interfere with occlusion in many ways. Usually the malocclusion which develops is caused either by impaction of normal permanent teeth which are prevented from erupting by the position of the supernumerary structure, or by separation and therefore malpositioning of erupted permanent teeth in both arches.

Supernumerary teeth may occur in either arch, but usually they are restricted to the maxilla and most frequently to the anterior region. Figure one shows multiple supernumerary structures which are retarding the development of occlusion by impacting the permanent incisors. These should be removed at the earliest possible date, i.e., as soon as it can be done without danger of injuring the permanent incisors.



FIG. 1



FIG. 2

The redundant malformed tooth, shown in figure two, should have and could have been removed at an earlier time. However, its immediate removal will very likely promise a closure of the space between the central incisors. A third type of interference with the development of occlusion is shown in figure three. In this case, patient age eighteen, it was necessary to remove the first permanent molar because of caries or other reason. The diagnosis suggested the plan of attempting a compromise occlusion by moving the second molar forward in the arch until it contacted the second bicuspid. However, a small peg-shaped supernumerary tooth on the mesial of the second molar prevented any forward movement until after its removal. This was done and the case progressed according to plan.



FIG. 3

Congenital Absence of Teeth

The second true hereditary factor causing malocclusion is the congenital absence of teeth. The ways and means of preventing the development of malocclusion caused by this factor are limited. Yet if the condition is correctly diagnosed at an early date, a pleasing result may be obtained, often without the use of mechanical orthodontic therapy. Actually all that can be accomplished is a compromise of normal occlusion.

This compromise may take one of two forms. The deciduous tooth may be retained in place of the missing

permanent tooth. This is in some cases satisfactory, but the variance in mesiodistal dimensions between the deciduous teeth and their permanent successors is usually great enough to provide trouble. Then too, the roots of the deciduous teeth tend to resorb even without the influence of the erupting permanent tooth. This causes the deciduous tooth to become loose or even lost later in life.

The other alternative in effecting a compromise occlusion is to extract the deciduous forerunner and allow the teeth distal to the edentulous space to drift mesially until contact is made with the mesially adjacent tooth. This is the method of choice but here a danger arises. The operator should not allow the space to close until he is certain that there will be no permanent tooth forming in the future. Occasionally tooth germs are exceedingly late in developing, and should a tooth develop after the space is closed, a more serious malocclusion will result than the treatment attempted would have avoided.

Three permanent teeth, lateral incisors, second bicuspid, and third molars, are most frequently congenitally absent, although cases of multiple absence do arise. The third molar when absent presents no difficulty, but the missing second bicuspid and lateral incisor involve problems in diagnosis.

When the second bicuspid is lacking, the principles previously outlined for a compromise occlusion may be adopted in way of treatment. It is wise, however, to wait until the child is at least eight years of age, and in case of tardy development even nine years, before assuming that no tooth germ will develop. Very little or no mechanical aid is necessary to move the molars forward into contact with the first bicuspid since the forward thrust of the erupting second permanent molar usually provides the required force.

In order to close the space occurring because of a congenitally absent lateral incisor, some type of mechan-

ical orthodontics is usually employed. A simple method of compromise is to move the cuspid tooth into contact with the central and contour it for aesthetic reasons.

Figure four shows the result of a similar treatment undertaken for Theresa M. The upper left central incisor was lost. The upper right lateral incisor was extracted and the cuspid on that side was moved in to take its place. On the left side, both the lateral and the cuspid were moved mesially to assume the positions normally occupied by the central and lateral. A porcelain jacket crown was prepared for the left lateral and the two cuspids were contoured to resemble laterals. The present aesthetic effect is exceedingly good.

Note the slight root resorption caused by treatment.

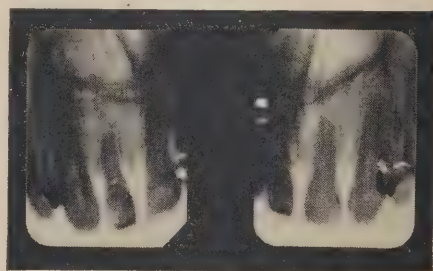


FIG. 4

Ruth K. had congenitally missing lower central incisors. Figure five shows the result of retaining the deciduous centrals. These teeth are now being prepared for porcelain jacket crowns. It is noted that only slight re-



FIG. 5

sorption has taken place in the roots making this treatment feasible.

In cases of multiple congenital absence, a prosthetic appliance is the only solution unless the deciduous teeth show a definite tendency to lack of resorption, in which case an attempt may be made to retain them. It is felt that the deciduous teeth should be retained as long as possible since the prosthetic appliance can always be made as a last resort. Figure six shows a lateral condylar view of Danny M. who has seventeen congenitally missing teeth.

At the age of eight, the trend of M. M.'s malocclusion was well defined, and at the age of ten years and four months, the maternal type was definitely established. The usual determining factors in denture maldevelopment having been ruled out, the determining cause must have come within the intrinsic group, inherent in the formation of the organism.

Cases of this type, dominated as they are by detrimental inherent factors, do not respond well to preventive measures, and mechanical orthodon-



FIG. 6

Family Tendencies to Specific Malocclusions

Willett (2) reports the case of M.M. who at the age of four years and six months presented only a minor abnormality in the cuspid area. In other respects, however, the child possessed marked physical likeness to his mother, maternal uncle and his son. This led to the premise that a posterior occlusion might develop at the onset of shedding of the deciduous incisors and eruption of the first permanent molars, as was the case with his cousin.

tics should be instituted at the earliest and most opportune time. A study has been made by geneticists with respect to the difference between the sequence of eruption of the permanent teeth of normal occlusion groups, and that of malocclusion groups. Ellis (3) reports the work of Hellman who has made three exceedingly interesting observations in this connection.

(1) Children with hereditary malocclusion tendencies begin to erupt their permanent teeth earlier and finish the process later than do children with normal occlusion.

(2) Willett, R. C.,—J.A.D.A., Aug. 1, 1944. (see bibliography)

(3) Ellis, Roy G.,—J.C.D.A., March, 1946. (see bibliography)

(2) The first permanent tooth to erupt in the malocclusion group is usually the lower central incisor, while in the normal occlusion group, the lower first molar is the first to erupt.

(3) The eruption of the upper first permanent molar precedes that of the lower first permanent molar in the malocclusion group, while the reverse is true with the normal occlusion group.

This brings out the importance of noting the sequence of eruption of the permanent dentition and should prove of great value in the predetermination of malocclusion at an early age so that the most desirous and adequate treatment plan may be formulated.

EXTRINSIC FACTORS

Habits

Undoubtedly the most common cause of malocclusion in the minds of the laity is that of habits, and probably the most common of these is thumbsucking. Numerous psychologists have told the dental profession how and when this and other habits should be treated, some even going so far as to say that thumbsucking is not a cause of malocclusion. However, very few dentists agree.

Higley (4) states, "Since a habit is an unconscious mental pattern, it seems only reasonable that the use of a corrective device that will recall the act to the conscious mind and will upset the pattern by making the act impossible or ineffective, should be a more logical procedure than an appeal to ego or pride." Further, it is psychologically sound to say nothing of the habit to the child, and to instruct the parents to do likewise. Then, by placing an appliance in the child's mouth which will interfere with the habit procedure, we will automatically cause him to cease the act.

On the other hand, if the child is

told not to continue the habit, his sense of adventure is aroused and he quite naturally rebels. A simple appliance for stopping thumbsucking may be constructed by casting crowns for the upper cuspid teeth and soldering a wire across the palate so that it clears the palate at the mid-line by three sixteenths of an inch. Should the wire alone fail to stop the habit, three or four sharp projections may be soldered to it in such a position as to hurt the finger or thumb but not the tongue.

Other habits such as sleeping on the arm, lip sucking, and the prolonged use of pacifiers should also be corrected as soon as they are noticed, by some such similar routine as outlined above. These will not be dealt with here since the study of child management would be essential if the discussion were to be complete.

Dental Caries and Defective Restorations.

In a survey by Willett of one thousand children from seventeen months to ten years of age, the following interesting but appalling data was established.

60% of the children examined had caries of deciduous teeth and defective fillings.

29% had premature loss of deciduous teeth.

8% had caries, defective fillings, and premature loss of deciduous teeth as the direct cause of malocclusion.

52½% had caries, defective fillings, and premature loss of deciduous teeth as a contributing cause of malocclusion.

This report makes it quite clear that early diagnosis of dental caries in the young child and the proper treatment thereof is the first step in the preservation and development of normal occlusion, and should be the first consideration of every practising dentist. It has long been a common

(4) Higley, J. B.,—Review of Dentistry for Children, Volume 7, Second Quarter, 1940. (see bibliography)

practice, in many instances, to paint carious areas with silver nitrate or to simply polish the affected region. The effectiveness of this procedure admittedly may be beneficial, but it is too unreliable to be considered adequate when so much depends on the positive control of dental caries in deciduous teeth.

The value of deciduous teeth beyond the maintenance of space for their more permanent successors is not the theme of this presentation. However, it might be pointed out that they serve as the instruments of mastication for one-sixth of the average life of the human if he lives to be sixty, and during the period of greatest growth and development. It is essential then that their function be maintained throughout their normal period of usefulness. Hence they must be treated with the same care as their successors — the permanent teeth.

Black (5) has described adequate cavity preparations for all areas of decay, and no mention of them is necessary at this time. The restorative material of choice is usually a good grade of silver alloy amalgam; or, on a few occasions inlays may be used. Poor grade materials should have no more place in dentistry for children than in dentistry for adults.

Premature Loss of Deciduous Teeth

Referring again to the report on Willett's survey, we see that 29% of the one thousand children examined had premature loss of deciduous teeth. It must be remembered, however, that the age group examined by Willett began with children seventeen months old. These younger children would, quite naturally, have a minimum of teeth lost, thus lowering the percentage considerably.

Drain and Cheyne (6) did much valuable work on the premature loss of deciduous teeth and the substance of their report follows:

- (1) Four year old group:
11% had extractions.
- (2) Five year old group:
20% had extractions.
- (3) Six year old group:
30% had extractions.
- (4) Seven year old group:
35% had extractions.

Also worthy of note in the report submitted by Drain and Cheyne was the fact that the tooth most frequently lost (in 25% of the cases) was the second deciduous molar. This included all age groups.

Further reference is made to a survey conducted by Lyons (7) who found that in children between the ages of five and twelve years where malocclusion had developed, 65% were associated with premature loss of deciduous teeth.

Consideration of these statistics leads us to the problem of space maintenance—where and when should it be instituted? MacGregor (8) has made a list of seven vital questions in relation to this problem. These follow.

"(1) What deciduous tooth is lost and when?

"(2) What relationship exists between the eruption of the second bicuspid and that of the second permanent molar?

"(3) When should deciduous molars be extracted if still in position at normal time of exfoliation?

"(4) If a deciduous tooth is to be used as an abutment for the main-tainer, what does the radiogram reveal with respect to the time this tooth itself might be exfoliated?

"(5) If a deciduous molar is lost at

- (5) Black, G. V.,—*Operative Dentistry*, Volume 3; Period of the Temporary Teeth, pages 92-112.
- (6) Drain, C. L. and Cheyne, V. D.,—*Dental Caries and Permanent Teeth Extraction*; J. D. Research, December, 1940.
- (7) Lyons, D. C.,—Reported by E. S. Foster, J.A.D.A., June, 1936.
- (8) MacGregor, S. A.,—J.C.D.A., July 1945. (see bibliography)

an early age, when is the permanent tooth expected to erupt?

"(6) Should the maintainer be of a free end type to allow for lateral growth?

"(7) Is an occlusal functional maintainer necessary?"

The answers to these questions may readily be determined upon careful consideration and study of conditions evident from clinical and radiographic examination with the age and development of the child in mind.

Should a second deciduous molar be prematurely lost, the space should be maintained until such time as the sequence of eruption of the bicuspid and second permanent molar is definitely established. This is usually about ten to ten and a half years of age. At this time, if the second permanent molar seems to precede the second bicuspid, the space maintainer should be retained until such time as either tooth is fully erupted. If the reverse is true, the space maintainer may be safely abandoned but the patient kept under observation.

Should the tooth lost be the first deciduous molar, the time of loss is of much importance. If it is lost before the eruption of the permanent lateral incisor and the first permanent molar, a space maintainer should be constructed. If the first permanent molar is in position but the permanent lateral incisor is as yet unerupted, the space maintainer should still be constructed. However, if the permanent lateral and the first permanent molar are both in place, space maintenance is not necessary.

In the anterior region of the mouth the maxilla expands normally without the force exerted by contacting teeth, and the space resulting from the premature loss of a deciduous incisor does not require maintenance. However, it is the opinion of the majority of writers, that if a deciduous incisor is lost from the lower jaw, that the anterior segment will collapse. Consequently, a space maintainer should

be constructed in this region.

Referring again to the relationship existing between the second bicuspid and the second permanent molar in event of premature loss of the second deciduous molar, mention must be made of other factors. The proximity of the tooth to the time of eruption is influenced by the amount and density of the bone covering the coronal portion, and not necessarily by its nearness to the gum surface. It is also wise to make a study of the dental radiograms and the physical characteristics of the child, so that the relationship between the stage of eruption of the teeth and the chronological age may be determined. The contrast thus made aids perceptibly in deciding the expectant dates of eruption of the permanent teeth.

The knowledge gained in this procedure again proves useful when deciduous teeth are retained well past their normal time of exfoliation. Second deciduous molars should not be extracted until the second permanent molar is fully erupted lest the second bicuspid become impacted. The dental radiograms also play an important part in deciding whether or not a deciduous tooth should be extracted when it is not lost through normal exfoliation. If the roots have not resorbed, the permanent successor will be moved out of alignment and probably will erupt lingually, buccally, mesially, or distally to its correct position.

In illustration, let us consider the case of Marilyn B., nine and a half years of age (Fig. 7). In this case the root of the upper left deciduous lateral was late in resorbing, causing the distal eruption of the permanent lateral. This condition could have been avoided, including the cost and inconvenience of the necessary orthodontic treatment which followed, by the timely removal of the deciduous lateral.

Another factor which must be considered in planning the construction



FIG. 7

of a space maintainer is the prognosis for the abutment tooth. Very often where a second deciduous molar is lost, the first deciduous molar is used as an abutment only to be lost in a short time through the process of an early but normal exfoliation. The tendency here is to leave the resulting space alone, that is, without another attempt at maintaining it. However, the danger of the space closing and causing the impaction of the bicuspid is still prevalent and must be cared for. In instances such as this, MacGregor has devised a type of inter-maxillary occlusal extension space maintainer. A cast overlay is prepared for the opposing second deciduous molar with an occlusal extension which engages the contact point of the permanent first molar, thus preventing its being pushed forward by the erupting second permanent molar. (Fig. 8.)

In cases where the abutment tooth seems likely to remain in place for a considerable period, the Willett space maintainer proves very satisfactory. An overlay is cast with an arm which extends over the space to be maintained. The arm has a right-angled attachment at the end remote from the overlay which rests against the proximal surface of the tooth on the other side of the edentulous space. In cases where the permanent tooth is not yet erupted, the right-angled at-

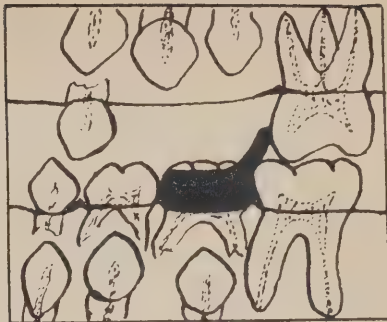


FIG. 8

tachment is lengthened to extend about one and one half millimetres into the gum to engage the mesial of the tooth. (Figs. 9 and 10.)

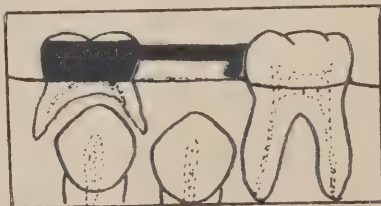


FIG. 9

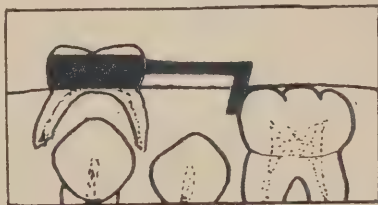


FIG. 10

Further, where both deciduous molars have been lost and conditions necessitate space maintenance, one of two methods may be used. MacGregor suggests the use of a prosthetic appliance. Corrigan (9) suggests banding of the first permanent molar and cuspid, and joining them with a connecting bar. The bar is soldered to the cuspid band, whereas a round tube is soldered perpendicularly to the distal of the molar band. A right-angle ex-

(9) Corrigan, Professor C. A.,—Lectures to year V, U. of T.

tension on the distal end of the bar fits freely into the round tube allowing lateral expansion of the anterior segment of the jaw. (Fig. 11.)

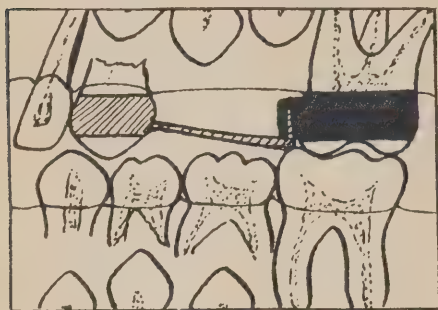


FIG. 11

Controversy arises as to whether a functional space maintainer is necessary or not. Some writers believe that one should be used in all cases while others agree that there is little or no extrusion of the deciduous teeth which might oppose the maintainer and that the functional factor is not necessary.

An attempt has been made here to outline where and when space maintenance should be employed, but at the same time, it is hoped that the reader will realize from the foregoing that in many cases it is not necessary and in others it should be avoided. It must be remembered that in some instances where it was sought to avert the danger of malocclusion by space maintenance, the hazard of malocclusion was introduced—through inadequate study and improper diagnosis.

Over-Retention of Deciduous Teeth

Our discussion of the extrinsic factors causing malocclusion concludes with the topic over-retention of deciduous teeth. Some include this condition in the intrinsic group and it would seem that there is no other evident explanation. It might be considered a border-line condition between extrinsic and intrinsic groups. Let us refer again to the illustration exhibited in figure seven. The over-

retention of the deciduous lateral, causing the eruption of the permanent lateral to take place distally to the normal position, causes the development of a serious malocclusion through impaction of the cuspid and bicusps and the malposition of the lateral itself.

The treatment of such a case is simple, it is true. The deciduous lateral is removed, and the permanent central incisors and the malpositioned permanent lateral incisor are banded. The central bands are soldered together to provide fixation. Spurs are soldered to the mesio-labial surface of the lateral band, and to the disto-labial surface of the left central band. The lateral is then moved into correct position with elastics or absorbent silk ligatures. However, all this, as was pointed out previously, could have been avoided if the deciduous lateral had been removed earlier to allow the permanent lateral to erupt in its normal position.

TRANSITIONAL MALOCCLUSION

One other type of malocclusion remains—if indeed it may be called malocclusion. The term transitional malocclusion refers to a variable type of malocclusion occurring during the period of exchange from the deciduous to the permanent dentition. Willett says, "The condition is frequently mistaken for an abnormal trend of denture growth, when in fact the apparent abnormalities are only a manifestation of individual normal growth characteristics."

To illustrate this statement, Willett relates the case history of a boy. At age seven, the time of introduction, a space of 0.15 inches existed between the maxillary permanent central incisors which had been previously and incorrectly diagnosed as being attributable to an abnormal frenum labium. Further the intercuspid width was deemed inadequate, and when the permanent lateral incisors erupted at age eight and a half years, they did so labially. The bite appeared mark-

edly open and the maxillary incisors seemed to protrude. The reason for the labioversion of the laterals was the pressure exerted by the developing cuspids which were bearing down on the roots. At the age of eleven the cuspids erupted, allowing the other incisors to assume correct alignment; and the bite closed automatically with the completion of their eruption.

All this was accomplished by natural processes of growth and development without the aid of any mechanical orthodontic therapy whatsoever.

The so-called transitional malocclusion was introduced at this time to bring to the fore the necessity of careful study of each individual case as it presents itself. While early treatment is essential in many instances, no treatment should be undertaken until a thorough knowledge of growth and development in general, and of the problems of the individual in particular, has been achieved.

CONCLUSION

We have set out to achieve a pur-

pose, to maintain the natural teeth in health, function, comfort, and good appearance. In our endeavour, we must strive to keep in harmony with nature. It is not enough that nature should assist us in our work, rather we must reciprocate by assisting her. This we can do by preventing and controlling disease processes, and discovering and correcting abnormalities as they occur.

"We may limit our field of work to suit our inclinations, but within these limits we are bound to serve to the utmost of our ability." Beyond that is trespassing.

BIBLIOGRAPHY

- Willet, R. C., D.M.D., Sc.D., Peoria, Illinois. What Types Of Malocclusion Are Preventable? *Journal of the American Dental Association*, Volume 31, Number 15, August 1, 1944.
- MacGregor, S. A., D.D.S., Toronto, Ontario. Interception Of Malocclusion. *Journal of the Canadian Dental Association*, Volume 11, Number 7, July, 1945.
- Ellis, R. G., D.D.S., M. Sc. (Dent.), Toronto, Ontario. Are Dental Cripples Inevitable? *Journal of the Canadian Dental Association*, Volume 12, Number 3, March, 1946.
- Higley, J. B., D.D.S., Preventive Orthodontics For The General Practitioner. *Review of Dentistry for Children*, Volume 7, Second Quarter, 1940.

62 Richmond St. W.

ANNOUNCEMENTS

Dominion Dental Council Examinations

The Dominion Dental Council Examinations will commence on May 22, and continue on 23, 26, 27 and 28. A later examination will be held in Toronto about mid-July: the date has not yet been set.

A. J. BRETT, *Sec-Treas.*
Regina, Saskatchewan.

Ontario Dental Association 80th Annual Meeting

Royal York Hotel, Toronto, May 19-21, 1947.

A.D.A. Convention

The annual meeting of the American Dental Association will be held in Boston, August 4-8, 1947. Elaborate programs are being prepared by the officers of the eleven scientific sections. All scientific section meetings, clinics and exhibits will be held in Mechanics Hall.

International Dental Congress in 1947

The 10th Congress which was to have been held in London in 1941 is to be held in Boston in August, 1947, on the invitation of the American Dental Association.



THE "NASCOPIE"

Dentist for Arctic Voyage

The R.M.S. "Nascope" will again leave Montreal for the Eastern Arctic voyage in early June. The Hudson's Bay Company sends a dentist to attend to the needs of both white people and the natives at the various ports of call. The trip usually concludes towards the end of September.

All equipment is supplied and all travelling expenses are paid by the Company. An honorarium is provided of \$500. plus fees collected for services, which might bring total earnings as high as \$1,000. This voyage constitutes a rare and enjoyable experience.

All interested applicants must be fully qualified and registered with one of the provincial boards.

Applications should be sent to Hudson's Bay Company, Personnel Division, Fur Trade Department, Hudson's Bay House, Winnipeg, Manitoba.

Winnipeg, Manitoba, Feb. 5, 1947

ANNOUNCEMENTS

National Convention at Digby—June 24-27.

Program

June 24 — 9.30 — 12.00	Registration.
" 24 — 2.15 — 4.30	Group Clinics.
" 24 — 4.30	Annual Meeting, C.D.A.
" 24 — 8.30	President's Reception & Dance.
June 25 — 9.30 — 12.00	Essayists, including Dr. Max Jacobs, Tufts & Forsythe; Dr. Paul Losch, Harvard; and Dr. B. S. Bibby, Tufts.
" 25 — 2.15	Conducted tour to historical sites—Tea.
" 25 — 8.30	Informal entertainment.
June 26 — 9.30 — 12.00	Essayists.
" 26 — 2.30 — 4.30	Table clinics.
June 27 — 9.30 — 12.00	Group Clinics.

Western Canada Dental Nurses' and Assistants' Association

This Association is holding its Annual Convention in conjunction with the Convention of the Western Canada Dental Society which is being held at the Banff Springs Hotel, Banff, Alberta, June 13-15, 1947.

ANNOUNCEMENTS

Western Canada Dental Society

The joint convention of this Society with the British Columbia Dental Association will be held at the Banff Springs Hotel, Alberta, on June 13-14-15.

Over 300 reservations have already been made for this convention and more are coming in continually.

The program committee announce the following headliners for the convention:

1. Dr. William Roy Eberle of Chicago. "A Comprehensive Review of Mucostatic Technique and the Fundamentals of Articulation."
2. Reed O. Dingman, A.B., D.D.S., M.S., M.D. of Ann Arbor, Michigan. "Oral Surgery."
3. John Kuratli, D.M. D., Portland, Oregon. "Fundamentals in Crown and Bridge Construction."

Registration for the convention will commence Thursday, June 12, at 8:00 p.m., to be followed by a reception.

The executive of the W.C.D.S. announce that the registration fee will be \$12.00.

For those registered at the Banff Springs Hotel, all luncheons and dinners of the convention will automatically be included in the hotel account.

The golf tournament will be, of course, one of the extraordinary features of the convention. To play over the Banff Springs course is the ambition of every golfer, and this opportunity will be provided by the tournament, to commence Thursday afternoon, June 12.

The committee in charge has arranged a delightful program for the ladies who are attending the convention. A feature of the many beautiful trips will be the spectacular drive through the heart of the Rockies, from Banff to Lake Louise, with lunch at the charming Chateau.

Northwest Conference in Dental Medicine

The Annual Meeting of this Conference is to be held at HARRISON HOT SPRINGS HOTEL, HARRISON HOT SPRINGS, BRITISH COLUMBIA, MAY 18-21, 1947.

For further particulars contact the Secretary.

C. R. HALLMAN, D.M.D.,
4298 Dunbar St., Vancouver, B.C.

Montreal Dental Club, Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel on October 22-24, 1947.

A cordial invitation is extended to all interested in presenting a table clinic at this meeting to communicate with Dr. C. C. Bourne, Chairman of Table Clinic Section, 1414 Drummond St., Montreal.

M. L. DONIGAN, *Director*,
1414 Drummond St., Montreal.

The Forum

THE PRESENT STATUS OF ANTIBIOTICS IN THERAPY

by JAMES A. DAUPHINEE, M.D., F.R.C.P. (C)
Toronto, Ont.

Summary of paper in Can. Med. Assoc. Jour., Jan. 1947.

1. Antibiotics are therapeutic agents, recently developed to a practical degree, which have been found to be remarkably effective in the treatment of certain infectious diseases.

2. They exert their action only upon certain specific organisms and it is therefore necessary that the nature of these organisms be known if the therapy is to be successful.

3. They must be employed in such a way that the offending bacteria are exposed to their action in a sufficiently high concentration and over a suffi-

ciently long period of time.

4. They act by killing and inhibiting the growth of sensitive bacteria but they have no effect whatever on any toxins that such bacteria may have already produced.

5. The development of antibiotics has introduced a very important new principle into the realm of practical therapeutics, a principle that will undoubtedly result in the discovery of other similar substances even more powerful and useful than those which are now available.

THE REACTION OF THE PULP TO PRESSURE

by M. B. MARKUS, D.D.S., Philadelphia, Pa. Professor of Orthodontics, Temple Univ. Dental School, Philadelphia, Pa.

Summary of paper in Am. J. of Ortho. and Oral Surg. Dec. 1946.

1. Histologic investigators are not in agreement as to the changes which occur within the dental pulp, be they of a temporary or permanent character, after teeth have been subjected to mechanical pressure.

2. Many of the investigators conceded some pulpal change ranging from simple hyperemia to decided degenerative changes.

3. From a clinical standpoint it is conceded by many that traumatized teeth may not reveal immediate recognizable clinical or radiographic signs indicative of pulpal change. In fact, these signs may not become apparent for a long time following the initial injury. It has been expressed by some men that where pulp disturbances have followed in the wake of orthodontic

treatment, a previous injury to the tooth was responsible for the condition.

4. Many men are in agreement with the fact that severe pressure will cause pulp devitalization.

5. By the use of the electric current in appraising pulpal changes as the result of pressure, it was found that the threshold of stimulation was lowered, which is indicative of pulpal irritation.

In conclusion it may be stated from the foregoing that proper and accurate pulp testing, especially of the upper four incisor teeth, should be of value to the orthodontist to determine the status of the pulps prior to treatment, thus safeguarding the patient and the orthodontist.

VITAMIN K: ITS RELATIONSHIP TO DENTAL CONDITIONS

by SUMNER K. RUSSMAN, D.D.S., Ann Arbor, Michigan

Conclusions of paper in Jour. of D. for Children, 4th Quarter, 1946.

1. Further research is required to ascertain the processes by which vitamin K may accomplish an effective reduction or the prevention of oral conditions.

2. It may be questioned that one experiment with the use of synthetic vitamin K in chewing gum provides sufficient evidence to support the conclusion that vitamin K reduces the dental caries-attack rate.

3. Vitamin K will improve gingival conditions in which the bleeding is due

to a low prothrombin content of the blood.

4. Prolonged ingestion of synthetic vitamin K in the diets of rats did not show any inhibitory effect on dental caries.

5. *Lactobacillus acidophilus* counts were not affected by the action of synthetic vitamin K in the mouth.

6. The human organism is not apt to suffer a vitamin K shortage unless some diseased condition of the liver or intestine exists.

FRIENDSHIP

by LUCILE BLACK, President of American Dental Assistants' Assoc.

Condensed from the Dental Assistant.

Our theme for the year has been FRIENDSHIP. This is a big word and covers a lot of ground. So much has been and can be said of Friendship! Friendships that grow and deepen as the years pass are among the intangible riches about which essayists write living documents. Friendships are a part of the human relations drama which bring laughter and relaxation from the daily grind. They mean courage. They bring comfort in those periods in every human being's life when the word, the letter, the handclasp of a friend means courage. Friendship means separation for years and then meeting and resuming the old ties, as if there had never been a separation. It means a card at Christmas time from a far corner of the globe and a smile and lift in the spirits over a brighter memory. Friendships mean stopping everything for the moment and "putting yourself out" to run an errand, do some extra marketing or shopping in crowded stores or some other way you might help Helen, Mary, or Jane. Friendship is that something which helps to justify living. It's like a pilot light burning. It's carrying a torch

without sentimentalism. It means whoops over an old kodak book and the pictured hobble skirt, or the pompadour, or the long waistline evening dress. It means reminiscent sighs over that snapshot of the "first love" wearing the pegtop trousers and high collar who is now married to a Connecticut girl and father of sons and daughters.

One of our main objectives in the ADAA is to bring the membership closer together, for when we get together our troubles pass away, because we know each other—we are friends. Friends are wealth to the poor, strength to the weak, and medicine to the sick. Friendship is pleasant, beautiful and healthy. Sharing our joys with friends doubles them, and pleasant emotions are essential to health. Enjoying things with friends is a life-giving tonic. Truly the better part of one's life consists in his friendships. Be a real friend and permit real friendship, and you give and receive the most valuable gift one human being can make to another.

As we grow older we find that many things we have cherished mean less to us, but that peace, friendship, and

a life of unselfishness mean more—infinitely more. I wonder how many of us in our pursuit of money and the baubles of fame have overlooked the most worthwhile thing in life—friendship? Some may think they are by nature cold and have no particular need for friendship, but, believe me, there will come a time when they will long for fellowship, when they will crave the companionship of those who understand. Others may feel that they have not the gift of making friends. This, too, is a delusion. And here I am reminded of a story—During the reign of Solomon there was a very rich man who entertained lavishly, plying his guests with all the luxuries obtainable in those days. The guests came, laughed, made merry, and departed, leaving their host an unhappy, lonely and discontented man, for he realized that none of his guests cared for him, none were his friends, and he longed for companionship of

those who really cared—friends. So he journeyed to Solomon's court, obtained an audience and asked Solomon to tell him the secret of making friends. Solomon replied: "Learn to be a Friend."

The gift of making friends is one of God's best gifts. It involves many things but, above all, the power of appreciating whatever is noble and good in another. He who recognizes the good in us is our brother and friend. Opportunities for service to your fellow members are constantly presenting themselves, and through these opportunities we learn the secret to happiness and success; making others happy, for you can't make life richer, sweeter, and happier for another without yourself reaping the same benefits. 'Tis only the things we give away that we will keep forever and carry with us when we pass through the door that has no key.

THE CHILDREN IN OUR MIDST

Excerpt from Editorial in Jour. of D. for Children, Oct., 1946

No school of dentistry should be satisfied with its program, its accomplishments or its contribution to dentistry or society as a whole, unless its graduates have had an adequate amount of good, sound teaching in dentistry for children and have been taught their personal and collective obligation to care for the dental needs of the children in our midst.

But education is for the older dentist as well as for the young student. It centres in youth, because it is recognized that there the most productive work can be done; but there does exist a definite need for education of this type among the older dentists too. Someone has said that our biggest educational problem is the training of dentists already in practice. There is a need for capable and willing older

members of our profession to accept their obligation to the children in their midst, and by example, to instruct the younger men and recent graduates. We so often hear the older men insist that the necessary dentistry for children should be done, but these very men do not accept their own obligation by practising what they preach. It would seem that if these men were really sincere in their expressions, they would be paragons of virtue, as it were!

It is in this field of continuing education that State and local dental societies must recognize their responsibilities. No dental society should be satisfied with its programs and accomplishments unless it stresses the importance of good dentistry for children and offers to its members sound clinical and lecture material.

"Don't let the best you have done be the guide for the rest of your life".



Editor: M. H. GARVIN, Winnipeg

Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:

D. T. Waye, Charlottetown

QUEBEC:

E. T. Bourke, Montreal

ALBERTA:

H. L. Freeland, Calgary

NOVA SCOTIA:

Warren C. Oxner, Halifax

ONTARIO:

T. R. Marshall, Toronto

SASKATCHEWAN:

L. D. Haselton, Saskatoon

NEW BRUNSWICK:

John E. Edgecombe, Saint John

MANITOBA:

J. F. Morrison, Winnipeg

BRITISH COLUMBIA:

H. M. Cline, Vancouver

Editorial

DENTAL HYGIENISTS

The Hon. John G. Winant, the United States Representative to the United Nations Economic and Social Council, at a dinner given in his honour last May, quoted John Stuart Mill as reported a century ago as follows:

"History shows that great economic and social forces flow like a tide over communities only half conscious of that which is befalling them. Wise statesmen foresee what time is thus bringing and try to shape institutions and mould men's thoughts and purposes in accordance with the change that is silently coming on.

The unwise are those who bring nothing constructive to the process, and who greatly imperil the future of mankind, by leaving great questions to be fought out between ignorant change on one hand, and ignorant opposition to change, on the other."

Dr. Don. Gullett in his fine editorial entitled "Change in Dental Practice" which appeared in our August Journal pointed out that the real task of human endeavour is to recognize change, discourage that which is bad and encourage that which is good, that truly great men are always ready to give up any hypothesis, however much beloved, as soon as the facts are shown to be opposed to it.

The question is are we going to be wise statesmen as Mill suggests and try to shape the future of our profession in accordance with the change that is silently coming on or are we going to be unwise and offer nothing but ignorant opposition to change and so greatly imperil the future development of dentistry in Canada. There must be an awareness of changing values

and the recognition of new obligations if we are going to realize all the benefits which our profession offers to us. If we are not to drift backward, we must go forward to a fuller professional life. One obvious forward step is the legalizing of the hygienist or registered dental nurse in Canada, without whose services any national dental health program will not be as efficient as it should be.

Quebec has the honour of being the first Canadian province to go to the legislature and obtain an amendment to the Dental Act empowering the Board to organize a body of dental hygienists and regulate their practice.

The Board of Directors of the Royal College of Dental Surgeons of Ontario has recently approved of the legalizing of dental hygienists in that province and is about to seek legislation permitting the development of this profession in Ontario. This Board also passed the following resolution:—"That this Board recommend to the Canadian Dental Association that the Council on Dental Education of the C.D.A. be requested to recommend uniform standardization of education for dental hygienists under the headings of:

- (1) Matriculation requirements
- (2) Educational curriculum
- (3) Uniform licensing by provinces."

At a special meeting of the Manitoba Dental Association held in January, it was decided by a very large majority to authorize the Board to obtain legislation, legalizing dental hygienists in Manitoba. Thus, the Canadian dental profession is awakening and it is to be hoped that before long similar legislation may be passed in every province.

We are all familiar with the rapid development of this movement in the United States during the last thirty years. In 1945 there were about 7000 dental hygienists practising in that country, about half of whom being engaged in dental offices and half in health departments, hospitals, teaching training courses and clinics. Thirty-seven states and territories issued licenses in 1945. Most of the seventeen schools offer a one or two year course for high school graduates and each year some 300 women graduates of dental hygiene are added to the number.

Perhaps in public health work lies the most promising outlook for the dental hygienist. The United States Department of Labour has this to say relative to this profession:

"The effectiveness of the dental hygienist in the field of public health has been clearly demonstrated in Washington, D.C., where an active educational and follow-up program conducted in the public and parochial schools by the Health Department has resulted in a phenomenal increase in the number of corrections and a corresponding decrease in the number of accumulated dental defects. More than 100,000 children are inspected annually. The number of completed corrections has doubled during the past two years as a direct result of motivation

by the 21 specially trained dental hygienists engaged in this program. Their educational activities include classroom talks, dental health assemblies and a follow-up program integrated with the school curriculum. Following experience in another large city school system, one writer has observed, 'The time will come when no school system will operate without a dental educator.' "

At the last meeting of the House of Delegates of the American Dental Association held in Florida last October, it was recommended to the state associations that hygienists be approved as ancillary aides and that state organizations promote proper training courses for them.

At the last meeting of the Board of Governors of the Canadian Dental Association the following resolution was approved: "We appreciate the value of properly trained hygienists for dental educational service and for prophylactic service and feel that they have a growing field in dental practice if under the control of the dental profession."

At the first All India Dental Congress held in January 1946 the Bhoré Committee recommended that in every dental college provision be made to train 100 dental hygienists every year.

Dr. McColl, former director of the Guggenheim Clinic in New York City, stated recently that the usefulness of the dental hygienist as an auxiliary worker in the field of dental health is nearly universally recognized; that in those states where dental hygienists are licensed they have demonstrated that they are indispensable to economical dental practice in addition to having unique value in the field of health education.

No group, no matter how powerful, can stop progress forever. Eventually the registered dental nurse, a title I much prefer to hygienist, if it could be legalized, will be practising in every province of Canada because they are needed and needed badly; because it is the part of wisdom to have all dentists, now on active duty, carry on their practices as efficiently as possible before trying to double or triple the number of dentists; because hygienists offer significant possibilities to the dentist who is reaching a period of declining activity; because their services are of inestimable value in the field of children's dentistry; because they will assist in expanding the dentist's relationship to his community; because they are a most potent factor in practice building; and because most thinking dentists want them.

Work for the advancement of dentistry is limited by no horizon. It is continuous and will never cease. If directed properly, dentistry has a great future, the greatest future of all time. God give us faith and capacity to drive "through hardship to the stars".

M. H. G.

"Nothing in life is more wonderful than faith—the one great moving force which we can neither weigh in the balance nor test in the crucible."—Sir William Osler.

BOOK REVIEW

The Surgeon Dentist or Treatise on the Teeth, in which is seen the means used to keep them clean and healthy, of beautifying them, of repairing their loss and remedies for their diseases and those of the gums and for accidents which may befall the other parts in their vicinity; with observations and reflexions on several special cases; a work enhanced by 42 illustrations by Pierre Fauchard, Surgeon Dentist in Paris. Translated from the Second Edition, 1746, by Lilian Lindsay, C.B.E., L.L.D., M.D.S., H.D.D., L.D.S., Hon. Librarian, British Dental Association. Published by Messrs. Butterworth and Co. Ltd., Bell Yard, Temple Bar, London, W.C.2. Price £2. 2S. net.

Desiring to pay tribute to Dr. Lindsay's devoted work on behalf of her profession and in commemoration of 50 years membership in the British Dental Association and her devoted work as Honorary Librarian, the Council of that Association made itself responsible for the publication of her translation of Pierre Fauchard's classical work which has not hitherto been available to English readers as a whole. The edition is limited to 500 copies.

The British Dental Journal states that M.

Laudumiey wrote of the original work; "I have never seen a more perfect dissertation on the teeth than the book which M. Fauchard has composed" and that Dr. Lindsay has been careful in her translation to preserve the style of the original.

As is generally known, Pierre Fauchard has been acclaimed the "Father of Dentistry" for over two centuries and his book has held a leading place in dental literature during that time. He was self-educated in the practice of dentistry and by hard work, achieved a high position in his profession, becoming the leading dentist in Paris.

Dr. Lindsay points out that one of the most valuable parts of this work, the case records, with Fauchard's reflexions upon them, gives the reader an insight into his movements and his methods of practice as well as the standard of the practice of dentistry accepted at the time. She further points out that Fauchard either coined or was the first to use the title "Chirurgien Dentiste".

This book, by this renowned dentist, is beautifully bound and should find a place in the library of many members of the dental profession.

M. H. G.

ROYAL CANADIAN DENTAL CORPS NEWS

Supplementary List of Canadian Dental Corps Officers

Retirements

Capt. L. W. Beamish, 25, 10, 46, Sidney, B.C.

Capt. C. R. Castaldi, 19, 11, 46, Phoenix,
Arizona, U.S.A.

Capt. A. Kalfas, 18, 11, 46, Montreal, Que.

Capt. J. F. Ledger, 27, 11, 46, Barrie, Ont.

Lt.-Col. G. H. Snell, M.M., 3, 12, 46

Vancouver, B.C.

There is nothing too good for the mouth of a child. Our profession must put into practice, individually and collectively, a dynamic program of complete dental care for all children. It certainly can be done if only we have the will to do it. This is the age of prevention and control. The heavy flow of adult dental prosthesis and the ceaseless insertion of inert, lifeless replacements for natural, healthy mastication organs, many of which could be saved through childhood care and education, will not suffice. Either dentistry for children must be carried out by our profession as presently constituted, or else the public will simply look upon dentists as glorified mechanics. Failing in our obligation, the inescapable result will be the dismemberment of dentistry and its gradual elimination as an autonomous profession. Society gets what society wants and, if necessary, enlightened people will find another way whether we like it or not.—Joseph H. Kauffmann in Jour. of D. for Children.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Saskatchewan Professional Associations Act

(The following statement was prepared and read to Premier Douglas for approval, after stating the same was for publication.)

The Council of the College of Dental Surgeons of Saskatchewan, accompanied by the C.D.A. Secretary, met Premier Douglas (also Minister of Health) by appointment on January 21, last. Two matters were discussed: first, the rumoured legislation respecting the introduction at the approaching session of the legislature, of a Professional Associations Act, and second, the adoption of the D.V.A. fee schedule for dental treatment services for all wards of the Saskatchewan Government.

The matter of the proposed legislation in respect to the introduction of a bill known as The Professional Associations Act, as reported, was discussed in detail. Mr. Douglas made definite statement to the effect that this proposal would not be introduced at the coming session of the legislature, by the Government. He further stated that any future contemplated changes in legislation affecting the profession would be discussed with the profession before any move was made. By way of explanation in respect to the rumoured legislation, he said that the proposed bill had not been approved by the sub-committee of the law amendments committee, and as a consequence the proposal failed at its initial stage.

During further discussion the two methods of administration for the professions were discussed: first, as exists at present, whereby the professions govern themselves and secondly, where the Government directly controls the professions. He stated that in his opinion both methods were EQUALLY subject to abuse. Further, he said that in his opinion as long as the professions did not abuse their present privileges he did not believe there would be any change made in the professional acts of the province, and that he had NO COMPLAINT TO MAKE RESPECTING THE ACTIONS OF THE PROFESSIONS IN THE PAST.

The interview was a most satisfactory one respecting this disturbing matter, and the Premier appeared most anxious to remove any

doubts which existed in the minds of members of the profession as to their future. He stated that he was ready to answer any inquiries with definite answers if any such disturbing matters should arise in future.

The second matter dealt with during this interview, concerned the confusion which now exists in dental offices owing to a number of existing fee schedules.

Some two years ago, the Government requested the Saskatchewan Dental Council to assist in rendering dental services for old age pensioners, mothers' allowance recipients, and others known as wards of the Government. At the time, the Council made an agreement with the Government, for the duration of the war, to perform the requested services on a stated fee schedule basis with the proviso that 20% be deducted. Approximately 75,000 dollars was paid for these services last year. In the meantime dental services for children had been introduced on the same basis in one health area. With the return of members of the profession from military service this arrangement was found to be unsatisfactory.

Request was made that the D.V.A. fee schedule be adopted for all dental treatment services for all wards of the Government including children, old age pensioners, etc. After some discussion Mr. Douglas agreed to recommend to the Health Planning Commission that the D.V.A. schedule be adopted to cover all dental treatment services requested by the Government to become effective April 1 next.

It should be recognized that this agreement is most satisfactory to the dental profession in that it is in harmony with the principles adopted by this Association. The patient has complete freedom to choose the dentist, and the adoption of one schedule for all means that preventive services for children are to be paid for on the same basis as service at any other age.

Dental Hygienists For Manitoba

A special meeting of The Manitoba Dental Association was called early in January to discuss the hygienist question. The result of the meeting was decided approval of legalizing hygienists.

The Manitoba Board has passed, as a consequence, a resolution approving the education and licensing of dental hygienists, and will seek legislation in respect to the same.

Royal Canadian Dental Corps

as of January 15, 1947

His Majesty the King has been pleased to approve the grant of the title "Royal" to the Canadian Dental Corps. This title is most gratifying, and undoubtedly comes to our Corps in recognition of the services rendered during the war. Such honour is justly deserved by the Corps in particular, and brings credit to the profession in general.

Proposed Amendment To Constitutional By-Laws

Dr. J. K. Carver, Vice-President of the Canadian Dental Association, has given notice that he will present the following motion at the next meeting of the Board of Governors:

"Resolved that Article VI, Sec. 1 of the Constitutional By-laws be amended by adding a sub-section (c) as follows:

'When the representative of a province

is elected President of the Association that province shall be entitled to elect an additional representative to the Board of Governors for the duration of the said President's term of office'."

Annual Dental Students' Register

The Dental Students' Register published in the form of six tables follows this article. The war measure of acceleration has now been discontinued in all schools. The total number of undergraduate students in attendance at Canadian Dental Schools is 785, exceeding last year by 267, and in excess of the year 1939-40 by 321.

Two schools did not have any graduates last year, due to the accelerated program. There were 103 new graduates, one of which was a woman. These graduates were the first to go directly into civilian practice since the beginning of the war. Only one school now has a blank class (Toronto) which will affect the number of total graduates for Canada in the year 1948.

The figures given in the various tables are self-explanatory.

TABLE I
Additional Students

	Dalhousie University	McGill University	University of Montreal	University of Toronto	University of Alberta	Total
Graduate during 1946.....	0	0	4	10	0	14
Post-Graduate during 1946..	0	0	30	48	0	78
1946-47 Dental Nurses.....	0	0	0	23	0	23

The term "Graduate" means proceeding to a degree.

The term "Post-Graduate" means taking a course other than proceeding to a degree

TABLE 2

Distribution of Undergraduate Students by Provinces and Foreign Countries in the Dental Schools of Canada as of January 2, 1947

School	Pr. Ed. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Br. Columbia	United States	Newfoundland	Br. West Indies	Brazil	Holland	Australia	United Kingdom	China	Totals
Dalhousie University	4	28	1	0	0	0	0	1	0	0	3	0	1	0	0	0	0	38
McGill University	4	5	8	47	8	4	7	1	8	7	1	10	0	1	0	0	0	111
University of Montreal	0	3	4	166	5	2	2	0	0	5	0	1	0	0	0	0	0	188
University of Toronto	0	2	1	2	235	14	29	4	23	0	0	1	0	0	19	2	1	340
University of Alberta	0	0	0	1	1	4	34	57	11	0	0	0	0	0	0	0	0	108
Totals.....	8	38	14	216	249	24	72	63	42	12	4	11	1	1	19	9	1	785

TABLE 3

Total Enrolment of Undergraduate Students in the Dental Schools of Canada as of January 2, 1947

University	Freshman	Sophomores	Juniors	Seniors	Men	Women	Total
Dalhousie University.....	11	7	9	11	37	1	38
McGill University.....	39	36	18	18	109	2	111
Montreal University.....	60	51	40	37	185	3	188
Toronto University.....	197	67	0	76	333	7	340
Alberta University.....	51	26	14	17	108	0	108
Total.....	358	187	81	159	772	13	785

TABLE 4

Recapitulation of Undergraduate Enrolment in the Dental Schools of Canada 1939-1946 Inclusive

School	1939-1940	1940-1941	1941-1942	1942-1943	1943-1944	1944-1945	1945-1946	1946-1947
Dalhousie University.....	36	31	25	25	22	28	27	38
McGill University.....	60	58	61	67	67	51	73	111
University of Montreal.....	90	104	118	139	154	162	184	188
University of Toronto.....	222	210	232	270	255	264	180	340
University of Alberta.....	56	51	49	53	24	34	54	108
Totals.....	464	454	485	554	522	539	518	785

TABLE 5

Total Number of Graduates During the Years 1939-1946 Inclusive

School	1939	1940	1941	1942	1943	1944	1945	1946
Dalhousie University.....	15	12	7	8	11	6	8	0
McGill University.....	17	13	18	9	26	12	13	5
University of Montreal.....	16	23	14	31	18	37	30	41
University of Toronto.....	49	56	45	40	103	61	58	56
University of Alberta.....	18	13	13	32	8	24	7	0
Totals.....	115	117	97	120	166	140	116	102

TABLE 6

For Year 1946

Maximum Number of Undergraduate Students that can be Accommodated in a Class for Next Season

Dalhousie University.....	14
University of McGill.....	20
University of Montreal.....	60
University of Toronto.....	75
University of Alberta.....	25

	Male	Female
Dalhousie University.....	0	0
McGill University.....	5	0
University of Montreal.....	41	0
University of Toronto.....	55	1
University of Alberta.....	0	0

Total..... 194

101 1

NEWS FROM THE PROVINCES

BRITISH COLUMBIA

Vancouver and District Dental Society

The guest speaker at the February 4 meeting of this Society was Dr. E. Campbell, Vancouver, B.C. He was on the staff of the Provincial Hospital at Essondale for several years and is now practising "Psychosomatic Medicine in Relation to Dentistry". This phase of practice has been receiving increasingly more attention and provided a very interesting evening for the members of the Society. Many questions were asked and capably answered.

The following were voted into membership in the Society: Drs. G. M. Jenks and O. F. Wright, Graduates of University of Alberta; Drs. N. Barlow, K. N. Morrison, G. E. Sayers, S. R. Charles and C. E. Craig, Graduates of University of Toronto; Dr. R. N. Grant, Graduate of Chicago College.

The Seattle and District Dental Society Mid-Winter Clinic was held on January 31 and February 1 in The Olympic Hotel, Seattle, Washington. Many members of the B.C. Association attended this meeting and enjoyed the program very much.

Fraser Valley Dental Society

The above Society has just been organized and has for its officers;

President: Dr. J. A. Barber, Chilliwack.

Secretary: Dr. A. H. Patterson, Abbotsford.

Vancouver Dental Assistants' Association

Weeks of planning by a tireless Executive resulted in a gala affair on the afternoon of December 14 when members of the Vancouver Dental Assistants' Association acted as personal hostesses to their individual doctors at a Christmas Party in the York Room of the Hotel Georgia.

Members and their doctors joined in an afternoon of fun and entertainment perhaps highlighted by a visit from Santa Claus, the role being very aptly played by Dr. W. J. Lavery. Solos were rendered by two of our own members, Mrs. Marian Beevers and Mrs. May Markham, and a gay time was enjoyed, even the Community singing.

Our hats are off to the few faithful who worked so hard on the beautiful bedspread which was raffled and won by Jessie Smith; also to the enthusiastic and efficient committee which was responsible for making the afternoon such an outstanding success.

Looking forward to even a better party in 1947!

Also looking for Santa Claus' whiskers!!!!

The Annual Meeting of the VDAA was held in the Pacific Athletic Club on January 13 at 6.30 p.m. Guests for the evening were the Board of Directors of the Vancouver & District Dental Society. Following a speedy business meeting the election of officers for 1947 took place, resulting as follows:

President, Rita Cowan.

Vice-President, Winn Whitehead.

Secretary, Gwen Hilliard.

Treasurer, Kathleen Syme.

The main event of the evening was the Candle-light Installation of officers with Dr. J. R. Ingledew, President of the Vancouver & District Dental Society acting as the Installing Officer.

The new Executive has a goal in view, to try to achieve as much as the retiring officers did in 1946. During that time the Association grew from a membership of eleven in January 1946 to one hundred and ten by the end

of the year. The Dental Assistants' registry is also proving a popular feature; almost fifty girls have been placed in offices since August 1.

GWEN HILLIARD

ALBERTA**Edmonton Dental Society**

Dr. Don Gullett, of Toronto, General Secretary of the Canadian Dental Association was guest speaker, at a well attended meeting of this Society, on January 27. Dr. Gullett outlined the program of the National organization and discussed in some detail the work of the respective committees on Dental Education, Dental Health, Hygiene, and Dental Research. The keynote of his address was the importance of preventive dentistry.

Dr. Gullett, informed the meeting that the Canadian Dental Journal, has become one of the most important publications of its kind, and its circulation is now world wide.

Dr. Gullett was introduced by Dr. R. A. Rooney, a Past President of the Canadian Dental Association.

Dr. M. A. McIntyre, thanked Dr. Gullett on behalf of the Society for his excellent address.

Calgary Dental Society

On January 24, forty members of this Society listened with great interest to Dr. Don W. Gullett, Secretary of the Canadian Dental Association, discuss the activities of the various committees of the C.D.A. The topic proved very interesting.

SASKATCHEWAN**Regina Dental Society**

Enthusiasm characterized the February meeting of this society which had been postponed to accommodate the itinerary of Dr. Don Gullett, of Toronto, the Secretary of the Canadian Dental Association.

President Dr. J. W. Riffel noted that there was a record attendance of members and visitors among whom were the members of the Provincial Council. Dr. Fasken introduced Dr. Harry Thomson, Toronto, who for many years has been identified with Dental Public Health, and who was recently honoured by the American College of Dentists.

Dr. Gullett, the guest speaker, arrested the attention of all as he reviewed the highlights

of the work undertaken by the Association on behalf of the dental profession across Canada. Dr. Gullett emphasized Preventive Dentistry; said he, "Prevention will be the Watchword of Dentistry; for the next One Hundred Years." His address was greatly appreciated.

Saskatoon Dental Society

At the February meeting of this Society a reel of motion pictures on "Immediate Denture Technique" was shown. This picture was procured from the Dental School of the University of Minnesota. It was felt by the Saskatoon members that a tour of pictures each winter for the Western Canada cities would be an excellent item for the societies to consider.

Dr. Roy West of Seattle, Associate Professor of Exodontia and Oral Surgery, of Oregon Dental School, visited Saskatoon and put on a most interesting Clinic which was illustrated by technicolour pictures.

He devoted his time to demonstration of the various injections, particularly the posterior palatine and the infra-orbital; the extraction of teeth, impacted and otherwise; the preparation of the mouth for immediate dentures; surgical removal of epuli, removal of frenuli and low muscle insertions; use of wondrpak and the removal of cysts. There were about fifty dentists in attendance, twenty of whom were from outside the city and all praised Dr. West for the extreme value of his clinic.

MANITOBA

Winnipeg Dental Society

Dr. Roy West, well-known oral surgeon of Seattle, Washington, has been visiting Western Canada during recent weeks demonstrating by means of wonderful coloured films the fact that he is still a past master in all that pertains to oral surgery and the extraction of teeth.

He appeared before the Winnipeg Dental Society on February 7 during the stormy period when the West had been making itself talked about, along with the whole world, for unusually severe weather. As a result of the weather many dentists from the outside points were unable to get to see and hear Dr. West. However he had very large audiences during the three sessions who were enthusiastic about the quality and character of the films,

which of course is the ideal means of demonstrating a surgical technique to large audiences. Dr. West displayed some of his scenic photography as well, and the comments of praise were quite enough to reward him for his thoughtfulness in bringing the films along.

Dr. Thomas Blight, President of the Society, presided at all the sessions.

Winnipeg Dental Nurses and Assistants

Before this Society on February 3, Miss A. Thexton, a missionary on leave from China, gave a most interesting and amusing talk on her contacts with the Eastern people.

DOROTHY A. MCCULLOCH

ONTARIO

Scholarships, Fellowships and Awards

The Council of the Faculty of Dentistry of the University of Toronto recently appointed an Endowments Procurement Committee to make a study of the financial needs of the Faculty—apart from those assumed by the University—and of the possibility of securing from other sources additional funds.

The Faculty has need for scholarships, fellowships, awards, bursaries, memorials, medals, keys, prizes and loan funds in order to stimulate better scholarship and to assist deserving students. These awards are needed for undergraduate, graduate, post-graduate and research students of the Faculty, as well as students from Grade XIII preparing to enrol in the Faculty of Dentistry.

The following reasons are given for donations:

1. Interest in young men and women.
2. Interest in a memorial to a person.
3. Interest in research.
4. Interest in graduate work.
5. Interest in the University or Faculty.
6. Interest in the dental profession and its development.
7. Interest in a particular subject.
8. Interest in a class group, society, district or fraternity.

Information on assistance in the establishment of scholarships, fellowships, awards, etc., may be obtained by writing to the Faculty of Dentistry, 230 College St., Toronto, 2. "B," Ontario.

Dr. Roy G. Ellis**Appointed Dean at Toronto**

Dr. Sidney Smith, president of the University of Toronto has announced the appointment of Dr. Roy Gilmore Ellis as Dean of Dentistry. Dr. Ellis has a fine academic record which gives him splendid qualifications for this high office in Canadian dental education.

He graduated from the Dental School, University of Adelaide, Australia in 1926 and immediately began the general practice of dentistry. In the autumn of 1928 he came to Toronto and enrolled in the final year receiving his D.D.S. degree in the Spring of 1929. On completing this course he was appointed a Research Fellow in the Faculty of Dentistry and received the degree of B.Sc. (Dent.) in 1930. In 1931 he was appointed to the teaching staff as associate in prosthetic dentistry. In 1934, at the close of the School year in Toronto, he went to England and enrolled in a graduate course at Guy's Hospital, London at the conclusion of which he was granted the right to practice Dentistry in the British Isles. He returned again to Toronto. In 1936 he was promoted to associate professor and assumed charge of teaching Clinical Dentistry, and in 1939 he was appointed associate professor of operative dentistry. In addition to his teaching duties Dr. Ellis continued his studies and research. In 1942 he was granted his M.Sc. (Dent.) and his degree thesis entitled "Electro Deposition and its Applications in Dentistry" was published by the Canadian Dental Research Foundation in 1943. In 1944 he was promoted again, this time to the rank of professor of Operative Dentistry and appointed Director of the Faculty Dental Clinic.

Dr. Ellis has always been a keen student of dental science and has demonstrated a great capacity for hard work. In the past ten years he has travelled all across Canada presenting lectures and clinics. In 1941 he was appointed Chairman of the Research Committee of the Canadian Dental Association which office he still holds. In 1944 he was appointed chairman of a special committee of the Board of the Royal College of Dental Surgeons of Ontario named to study and investigate methods of teaching and courses of study in selected dental Schools. This was done with a view to planning a long range program of

dental education for the Faculty of Dentistry both with respect to undergraduate and graduate studies. In 1945 he was appointed chairman of the associate committee for Dental Research under the National Research Council of Canada. He is also a member of the International Association for Dental Research. In 1945 he published a text book "The Classification and Treatment of Traumatic Injuries to the Teeth of Children", which was the result of several years of clinical research. The book is now in its second edition. In addition to this publication he has made contributions to Canadian and American journals from time to time passing on to his colleagues the benefit of his research and study.

Late in 1946 the American College of Dentists saw fit to confer on him a fellowship (F.A.C.D.) in recognition of meritorious achievement in dental science, art, education and literature.

It is a great honour to be Dean of the Faculty of Dentistry of the University of Toronto but Dr. Ellis will be the first to recognize that with the honour goes responsibility. He brings to the office a keen interest, a wide experience, a capacity for getting things done, a recognition of the great need of dental research, an appreciation of the value of public dental health education and above all, he possesses ability to work with and lead his colleagues and students in even greater achievements in the advancement of dental science. Dr. Ellis assumes office July 1, 1947.

Ladies' Auxiliary Vote Bursary Fund

At the January luncheon of the Ladies' Auxiliary to the Toronto Academy of Dentistry twelve hundred dollars was voted for a bursary fund for ex-Dental Corps men who are now dental students. The money is to assist students in completing their courses at the Faculty of Dentistry, University of Toronto.

The East group of our association, under the convenership of Mrs. C. I. Treadwell, sponsored a bowling party at which the members entertained their husbands and friends. The party was held at the Acorn Central Bowling Alley February 8. Prizes were given for the highest scores as well as several lucky number prizes. Refreshments were served.

MARGUERITE BOYES

Class 4T2

Reunion dinner will be held in Blue Room of the King Edward Hotel, Toronto, May 19 at 6.30. Write Dr. J. A. Bigelow, 24 Eglington Ave. West if you can be present.

QUEBEC

Montreal Dental Nurses' Association

At the January meeting of this Association Dean A. L. Walsh was the guest speaker.

Through the co-operation of Dr. Walsh, a room has been made available at the University for the use of the Association, and study groups are being planned for the near future.

Montreal Dental Club

The January meeting of the Montreal Dental Club was held at the Montreal Veterans Hospital, with Dr. G. M. MacDonald, dental surgeon to the hospital, as speaker.

Dr. MacDonald's subject was "Treatment of Facial Battle Injuries," and with the aid of coloured slides, he reviewed many of the different types of facial injuries encountered in the late war and described the part the

dentist played in the restoration of these cases in conjunction with the general and plastic surgeons.

Following the meeting, members of the club were guests of the Hospital in the officers' lounge, where light refreshments were served.

Mount Royal Dental Society

This Society met on Nov. 22 at the Jewish General Hospital. The speaker was Dr. W. W. Breslin of Toronto, who addressed the Society on "Oral Surgery". His subject matter was most interesting and instructive.

A general meeting of the Society was held on January 13. The speaker was Dr. Jules Thebaud who spoke on "Failures and Successes in treating Hypertrophic Gingivitis and Pyorrhea Alveolaris".

A general meeting was also held on January 31. The guest speaker, Dr. Jules Leaf of New York, spoke on "Inlays and Fixed Bridge Construction". His lecture, during the afternoon session, was illustrated with slides. A dinner followed, and the evening session was devoted by Dr. Leaf to conducting a table clinic and practical demonstrations.

EMPIRE NEWS

GREAT BRITAIN

The Plebiscite

The New Year opens inauspiciously for the medical profession. No one feels really happy about the result of the postal ballot of the doctors of the country on the question of negotiating with the Minister of Health over the carrying into effect of the National Health Service Act. The striking feature of the ballot is that 81% of civilian doctors should have participated; of these 54% voted against negotiations. An analysis of the figures shows that 56% of general practitioners voted against negotiations, whilst in the case of whole-time members of voluntary hospital staffs, whole-time teachers and whole-time research workers only 41% voted "no". In other words, it is the general practitioners who have come out most strongly in opposition to the new Act.

The Council of the B.M.A. has taken immediate action and is submitting a resolution to a special meeting of the Representative Body to be held on January 28, to the effect that the Minister of Health should be informed

that the Negotiating Committee is unable to enter into negotiations with him on the Regulations to be made under the Act.

Whatever the upshot of it all may be, one fact stands out clearly above everything else; that Parliament has decreed that the new service should come into force—and by a definite date. Whether the country may ultimately regret the decree of its elected representatives is another matter that, at the moment, is only of theoretical interest. The Minister must carry out the mandate of Westminster, and, if the B.M.A. will not assist him in his task, then he will be compelled to turn elsewhere for his advisers.—*From London Letter in Can. Med. Assoc. Jour. Feb. 1947.*

London Nurses Win Battle, Refuse Union Membership

by PETER LYNE in *Christian Science Monitor per Public Health Economics*

"There has been a sharp check to Great Britain's seemingly unbridled embrace of the closed shop or 100 percent unionism. Just when doctors, nurses, bankers, and practically

everybody doing any sort of a job thought they were going to be swept into the prevalent 'unions-for-all' movement, a band of hospital nurses in Willesden district of London has made a stand which might well become a landmark in industrial relations. . . .

"The nurses have won. The over-enthusiastic socialist councillors of Willesden who discharged the nurses for not belonging to a union have been reprimanded. Government leaders and trade union spokesmen have in effect apologized for 'closed shoppism run riot.' . . . A committee of the Willesden Borough Council met in private and passed a recommendation to re-engage all those nurses and doctors who had been served dismissal notices for not belonging to a union.

"The committee also decided that the Council, though adhering to its 100 percent unionism, would consider as a union such organizations as the British Medical Association, the Royal College of Nursing, the Royal British Nurses Association and College of Midwives, and any other association, corporation, college, or body of persons. It looks as if it wouldn't be very difficult in the future to call oneself a trade unionist in Willesden.

"Alderman Stanley Scott, the Willesden Mayor, is reported as saying, 'We have agreed to recognize conscientious objectors to trade unionism just as conscientious objectors are recognized in wartime.' "

Training of Dental Assistants

A course of training for Dental Surgery Assistants is being instituted at Guy's Hospital Dental School. The course will last for a year and entrants must be of School Certificate standard. The first six months of the course is to be spent in secretarial training at a recognized secretarial college from which a certificate of proficiency must be obtained. Trainees must also obtain the First Aid and Home Nursing certificates of either the St. John Ambulance or the British Red Cross Society. The second half of the course will consist of 28 lectures and practical work at Guy's. These will include elementary anatomy and physiology of the teeth and associated parts and their diseases and treatment; preparation of patients for operation with local and general anaesthetics; sterilization of instruments and preparation of local anaesthetics; assisting with general anaesthetics; dental and surgical instruments and their use; uses of

drugs in dentistry; nature and use of filling materials, and their preparation; taking, processing and mounting x-ray films; prevention of dental disease and principles of oral practice.

No more than 12 trainees will be taken each year, and the cost will be 20 guineas. It is suggested that successful students should be given the title Certificated Dental Surgery Assistants.—*Br. D. Jour.* Jan. 3, 1947.

NEW ZEALAND

Professor J. Reid Burt Retired

Following a lifetime of devoted service to dentistry, Professor Burt has retired from active association with dentistry. We, in Canada, know him best as the scholarly Editor of the New Zealand Dental Journal, which position he has held since 1933. We shall miss his original and timely articles and his influence on professional thought.

We wish for him many happy years in his retirement.

Dr. J. P. Walsh, Dean of the Dental Faculty, has been appointed Editor of this outstanding Journal and we wish for him a brilliant future in this important position.

SOUTH AFRICA

Dental Mechanics Act

The agreement between employers and mechanics, known as the Dental Mechanics Act, is effective from December 1, 1946 until December 2, 1947.

The wages and cost of living allowances are as follows:

- (1). Every employer shall pay and every dental mechanic shall receive a minimum wage of £42 per month.
- (2). Each employee shall be paid by his employer, at the same time as his other remuneration is paid, a cost of living allowance equal to that prescribed in War Measure No. 43 of 1942, as amended, or as may be amended from time to time.

No employers shall require or permit an employee—

- (1) to work for more than forty-two hours, excluding meal times, in any one week; or
- (2) to work for more than 7½ hours per day on five days in the week and 4½ hours on the sixth day; or

- (3) to work between the hours of 6 p.m. and 8 a.m. or females to work after 1 p.m. on more than five days per week; or
- (4) to work a continuous period of more than five hours without an uninterrupted interval of at least one hour.

Special provision is made with regard to over-

time, limiting the time and stating the remuneration. Provision is also made for holidays and sick leave.

Minimum rates are set for all types of mechanical work. For example, the rate for full upper and lower dentures made of plastic or vulcanite is £4 5s., while a full upper or lower denture is £2 7s. The rate for the relining of a single denture is £1 5s.

GENERAL NEWS

Nutrition and Dental Caries

by D. HADJIMARKOS, D.D.S., M.S.D., M.P.H.,
Excerpt from Jour. Ore. State D. Assoc., Jan., 1947.

Health has been defined as "a state of complete physical well-being and not merely the absence of disease." There is no doubt that in order to attain the highest possible level of health there must be a recognition of the fact that the prevention and control of dental diseases play a great part in the promotion of health.

From the above fact it is evident that the dental profession has a great responsibility to society. This responsibility is that everyone should receive such preventive and restorative measures as to maintain throughout life a perfectly functioning set of teeth in a healthy mouth. Although this is the ideal goal of dentistry, it cannot be attained because of considerable previous damage of dental disease.

Only intensified research in this field will give us the answer to our problem.

Recognizing the seriousness of this situation the Extensive Women's Council of the State of Oregon was instrumental in obtaining a grant of \$20,000 from the State of Oregon for a study of the relationship between nutrition and teeth, to be conducted by the Department of Foods and Nutrition of the School of Home Economics, Oregon State College.

Outstanding Gift

Alfred Nobel, the engineer and chemist, who died at San Remo, Italy, on December 9, left a will bequeathing his entire fortune, amounting to about \$10,000,000, to the Stockholm University.

Population of British Columbia

The latest ration book count indicates that the population of British Columbia is now more than a million, a gain of 145,000 in the past two years. This province is growing more rapidly than any other section of the Dom-

inion. It is also interesting to note that the far west of the United States has expanded in recent years in population and economic wealth more rapidly than any other area of the United States.

Cancer on the Increase

Cancer took a toll of 171,000 lives last year in the United States and is increasing at the rate of 1,500 new cases a year as time goes on. This places it in the category of a national menace. All the general and private hospitals of the country are filled to overflowing with patients who are acutely ill and who are hospitalized for just a short time. Cancer patients, on the other hand, may require months of care. Consequently, few hospitals can take them; and home, certainly, is no place for them.

Taking cognizance of these facts, a group of influential citizens has organized the National Cancer Foundation with headquarters in New York City. The Foundation is currently in the midst of a campaign to raise funds for its program of providing care for the cancer patient. It is not the American tradition to deny expert care to any individual who has a hopeless disease. The National Foundation is the first organization of its kind to intercede for the cancer victim. It deserves support.—*Editorial in Fortnight Review Chi. D. Soc.*

Dentistry in Poland

According to a report furnished to UNRRA by R. H. Sutherland, Poland is short not only of dentists but even more woefully, of dental equipment. There is approximately one dentist to every 12,000 inhabitants and the 1,500 dental students at Lodz haven't even one dental chair between them. Ultimately it is hoped to provide ten mobile dental units for use in country areas. —*Br. D. Jour.*

Number and Distribution of Dentists in U.S.A.

The Bureau of Research and Statistics of the Federal Social Security Agency reports 77,510 dentists in the continental United States or one dentist to every 1,720 persons. Maldistribution of dentists is even more marked than that of physicians. While there was one dentist to every 1,200 persons on the West Coast and one to every 1,300 in the Middle Atlantic States the West South Central States reported only one to every 3,100 and the East South Central States had one to every 3,900 persons. South Carolina, Mississippi and Arkansas had only one dentist to more than 5,000 people.

—*N.Y. Jour. of D.*

Fluoride Tablets and Bone Meal Preparations

Scientific evidence is insufficient to warrant the use of fluoride tablets or bone meal preparations as dietary supplements in an effort to prevent dental decay the Council on Dental Therapeutics of the American Dental Association has reported in its Journal.

"Though probably not dangerous in amounts recommended for daily consumption," the report reads "fluoride added to diets already high in fluorine content or consumed in areas where water supplies contain significant concentrations of fluorine may constitute a health hazard.

"This possibility and the inconclusive nature of experimental evidence concerning their effectiveness render synthetic fluoride and fluoride-vitamin preparations for use in the treatment of dental caries not acceptable for inclusion in the A.D.A. list of Accepted Dental Remedies at this time."

Similarly, the Council rejected from its list of Accepted Dental Remedies a number of preparations containing powdered cattle bone supplemented with vitamin D recently placed on the market for the treatment and prevention of dental caries. The report read:

"Basis of their use is the assumption that tooth decay is due to deficiencies of calcium, phosphorous, fluorine and vitamin D. Although it may be conceded that these dietary factors may be essential during the development of the teeth, available evidence does not indicate whether they are important after tooth formation is completed." —*A.D.A. Release.*

Medical Profession in Sweden

by AVRID WALLGREN, M.D.

Excerpt from Canadian Med. Assoc. Jour. Dec., 1946.

"There are no physicians in Sweden appointed specially to treat patients belonging to health insurance funds. There is complete freedom as regards the choice of physician, and a person with health insurance is at liberty to consult any qualified physician, including specialists, he desires. Either the patient pays the fee to the physician and then applies to the sick relief fund for payment, against production of the physician's receipt of the amount which the Fund allows in accordance with the rate fixed by the Government for the examination and the treatment the patient has received; or the physician sends the Fund a bill for the amount which is due him according to the same rate. In some cases, as for instance, when a specialist has been consulted, the amount (8 to 20 crowns or more) varying than what the patient has paid, but as a rule the fee requested by the physician is more or less on a level with the sick benefit. The sick relief fund fixes a certain fee for the first consultation in the physician's consulting room (5 crowns.—A Swedish crown or krona is equivalent to 28c in Canadian funds.) and for subsequent consultations (3 to 4 crowns); it fixes the fee for a visit to the patient's home, the amount (8 to 20 crowns or more) varying with the distance (8 to 30 kilometers or more) the physician has to travel; and it also fixes a certain additional fee (2 to 20 crowns) for various examinations and surgical interventions, the rate for each type of examination or operation being specified.

"On the whole, physicians seem to be satisfied with the sick relief rates; this can also be seen from the fact that the rates approved by the head physicians of the hospitals diverge only very slightly from the rates of the health insurance companies. The rates followed by the State medical officers are slightly lower than the sick relief rates. The members of the insurance funds are also satisfied with the insurance regulations, as they are at liberty to consult whatever physician they please.

"At the present time, more than 50 per cent of the Swedish population are entitled to sick benefits, and a proposal has been submitted to Parliament that a bill be passed compelling all Swedish citizens to become members of a health insurance fund."

New Editor for A.D.A. Journal

Dr. Lon W. Morrey, of Evanston, well known authority on children's dentistry, has been named editor of "The Journal of the American Dental Association."

Dr. Morrey was also named editor-in-chief of the Association's companion publication, "The Journal of Oral Surgery."

For the past 13 years, Dr. Morrey has served as Director of Public Relations and Dental Health Education for the A.D.A. In that post, he has conducted a continuing national campaign to increase dental health services for children, particularly in preventive dentistry.

Dental Illustrator Joins Public Relations Staff of A.D.A.

Mrs. Jeanet Dreskin has joined the staff of the Bureau of Public Relations as a dental illustrator and will be in charge of preparation of sketches, diagrams and art work for a variety of publications of the American Dental Association.

Dental Society Dues in U.S.A.

Society dues vary somewhat, depending upon the size of the local dues. Dues for A.D.A. membership are \$6.00, for the state of Illinois \$6.00, and then to this is added the local dues. For example, in Chicago, the local dues are \$15.00, making the total amount for members of the Chicago Dental Society \$27.00.

Caries in the Undernourished

Undernourished persons suffering from pellagra, scurvy and other nutritional deficiency diseases tend to have less tooth decay than persons who eat average American diets, four research scientists of Alabama have reported in *The JOURNAL* of the American Dental Association.

They reported that the group of 124 persons, all of whom showed definite clinical evidence of nutritional deficiencies, had less than one-third the amount of dental caries (decay) experience found in the well-fed group.

The results, the scientists reported, tend to refute an earlier belief that dental decay is directly related to the nutritional adequacy of the diet.

The undernourished patients, however, were found to be much more subject to periodontoclasia (pyorrhea). The researchers reported that 43 of the malnourished patients exhibited



DR. LON W. MORREY

clinical symptoms of disease of the supporting tooth structures while only 6 of the well-nourished group exhibited similar symptoms.

The scientists reported that the carbohydrate and fat intake of both groups was about the same. The undernourished patients existed primarily on corn bread, syrup and fat, the dietary staples of parts of rural Alabama, the scientists said.

Blood tests showed that only few of the well-nourished group were below normal levels in vitamin A, C, and E, and carotene, whereas in the experimental group more than 100 were low in two or more of these nutrients.

The study was conducted in cooperation with the Department of Internal Medicine of the University of Cincinnati.

Veterans and Dental Service in U.S.A.

The number of veterans who are potentially eligible to receive dental care in the U.S.A. is approximately 20,000,000 men and women. 16,000,000 are veterans of World War II, and 4,000,000 are veterans of World War I and other wars. It is possible that of this number approximately one-half will receive dental treatment as beneficiaries of the Veterans' Administration.

Dental Care Required of Pennsylvania Students

An oral health program which requires all students to have a complete oral diagnosis twice a year, followed by any necessary corrective procedures, has been established at the School of Dentistry, University of Pennsylvania, Philadelphia.

The program includes a complete clinical, roentgenologic and study model examination and charting, followed by a consultation with a member of the oral health committee who will recommend the work that needs to be done. An examination to determine that the

necessary work has been completed will be conducted at the end of each semester.

No student will be recommended for his degree at the completion of his course until his mouth is in a satisfactory state of health and function.

A.D.A. Christmas Seal Campaign Returns Still Coming In

Partial receipts from the annual sale of Christmas Seals for the Relief Fund of the American Dental Association reached \$21,788 on January 15, with returns still piling up faster than they could be counted.

A few weeks ago I was waiting in a queue outside "The London" for a bus to take me home. One after another buses and trolley-buses flashed by, crammed to capacity. Finally, however, one drew up at the curb and I was privileged to see a rare and amusing scene. "One only" said the conductress. I watched. Instead of the usual surge forward of the crowd everybody remained fairly controlled except for one elderly labourer who gallantly stepped aside and allowed a middle-aged woman to board the bus in his stead. This she did and, although she had not been the first in the queue, not one word of thanks did this selfish woman offer to the labourer. It was heartening to see this rare and kind gesture, and to realize that chivalry was not dead, despite the efforts of "the gentle sex" to stifle it once and for all by demanding equal rights and treatment as men. I was amused, too, at the stream of potent comments which the man sent hurtling after that thoughtless woman. She turned and, as the bus drew away, stared at the labourer, quite oblivious of having done anything to merit such indignant words. In her mind nothing was amiss, but to those who were witnessing the scene and standing near the labourer there was no doubt that he, at least, was dissatisfied with something.—B.O.J. in London Hospital Gazette.—

IN MEMORIAM

G. Alex Gemeroy of Edmonton, Alberta, aged 52, died January 21 following a lengthy illness. He had been a resident of Edmonton for 27 years and took a prominent part in civic and professional life.

He was graduated from the Faculty of Dentistry of the University of Toronto, following which, he commenced practice in Edmonton. He was a lecturer on the dental faculty at the University of Alberta, a past-president of the Edmonton Dental Society and a member of Ivanhoe Lodge, AF and AM. For some time he served on the Edmonton public school board.

Dr. Gemeroy is survived by his widow, his mother, six brothers and three sisters.

O. B. Price of Moncton, New Brunswick died on January 18. He was a past-president of the Moncton Dental Society and a former member of parliament for Westmorland County.

W. S. Young of Waterloo, Ontario, aged 63, died February 4. He was a graduate of the University of Toronto and practised in Waterloo for the past fifteen years.

Dr. Young is survived by his widow, two sons and a daughter.

La reproduction des dents antérieures en acrylique pour dentier immédiat*

par AIME COUTURE, D.D.S., Ottawa, Canada

L'introduction récente de l'acrylique dans la fabrication des travaux dentaires ouvrait de larges perspectives à notre profession. En conséquence, cette dernière fit, au cours des dernières années, de rapides progrès, particulièrement en ce qui concerne la correction et la substitution.

A mesure que les procédés se développent et se perfectionnent, on obtient des effets esthétiques de plus en plus remarquables, tout en assurant à nos travaux une plus grande durée. Nous pouvons donc maintenant offrir à nos patients des pièces de réelle valeur à tous points de vue.

Nul doute que nous pourrions atteindre de plus grandes réalisations, si tous les membres de notre profession se faisaient un devoir de communiquer à leurs confrères, soit au moyen de cliniques, soit par l'entremise de nos excellentes revues, les résultats de leurs observations.

Pour ce qui est de la correction et de la substitution, domaines qui ont fait plus particulièrement l'objet de mes recherches, le premier but à atteindre est, sans aucun doute, la satisfaction des besoins physiologiques de nos patients. Cependant, avec les réalisations, que permet maintenant l'acrylique, il n'est plus permis, je crois, d'ignorer le désir bien légitime de ces derniers: celui de cacher toute apparence de restauration artificielle.

J'ai pensé qu'il était possible de concilier ces exigences, en reproduisant aussi

fidèlement que possible, en acrylique, les formes, dimension, couleur et position des dents antérieures.

Je me suis donc appliqué à la solution de ce problème très intéressant et grande fut ma joie, quand j'ai constaté que ma première expérience était couronnée de succès au point de soulever l'enthousiasme de mes confrères les plus intimes.

Ils ont donc admis, sans hésitation, les nombreux avantages que comporte cette technique, laquelle, en plus de ceux du dentier immédiat, offre, entr'autres, les suivants:-

- 10-Une précision absolue dans la reproduction des dents antérieures;
- 20-Une grande facilité pour le débit oratoire, en conservant intacte la conformation linguale;
- 30-Elimination dans le choix et le montage de chaque dent individuellement;
- 40-Un heureux effet psychologique, chez le patient, qui est forcé d'apprécier ce travail, au double point de vue vraisemblance et esthétique;
- 50-Danger de fracture des dents antérieures considérablement réduit;
- 60-Simplicité de technique;
- 70-Choix presque illimité de nuances.

Il m'est agréable d'expliquer succinctement ci-après, les différentes phases de ma technique, qui, comme vous le noterez, comporte deux parties distinctes.

Après avoir fixé, avec la plus grande précision possible, les nuances gingivale

* Communication présentée à la Société Dentaire de Montréal, le 12 novembre, 1946.

et incisive particulières du patient, l'on procède à la prise de deux empreintes des dents antérieures au moyen de substance alginée. De la première, remplie de "Solvite" ou plâtre soluble, sortira un modèle qui servira à la confection de la pièce désirée. La seconde empreinte, coulée en pierre artificielle, assure un modèle permanent pour référence.

Avant la mise en moufle et afin d'éviter toute adhérence, le modèle en "Solvite" doit être recouvert d'une bonne couche de lubrifiant. Il faut bien s'assurer, en outre, que la surface labiale et le bord incisif sont totalement exposés.

L'opération la plus délicate et aussi la plus importante, consiste dans le mélange des poudres acryliques et le bourrage. On aura donc soin de ne déposer qu'une petite quantité de poudre, à la fois, saturant le tout de liquide et ainsi de suite, alternativement, jusqu'à ce qu'une quantité suffisante de pâte soit obtenue. Au préalable, il faut bien s'assurer que le moule n'a retenu aucune trace de "Solvite" et que les parois inférieures du moufle sont rendues imperméables et glacées à l'aide de "Film-Ac" ou son équivalent.

La reproduction des nuances obtenues

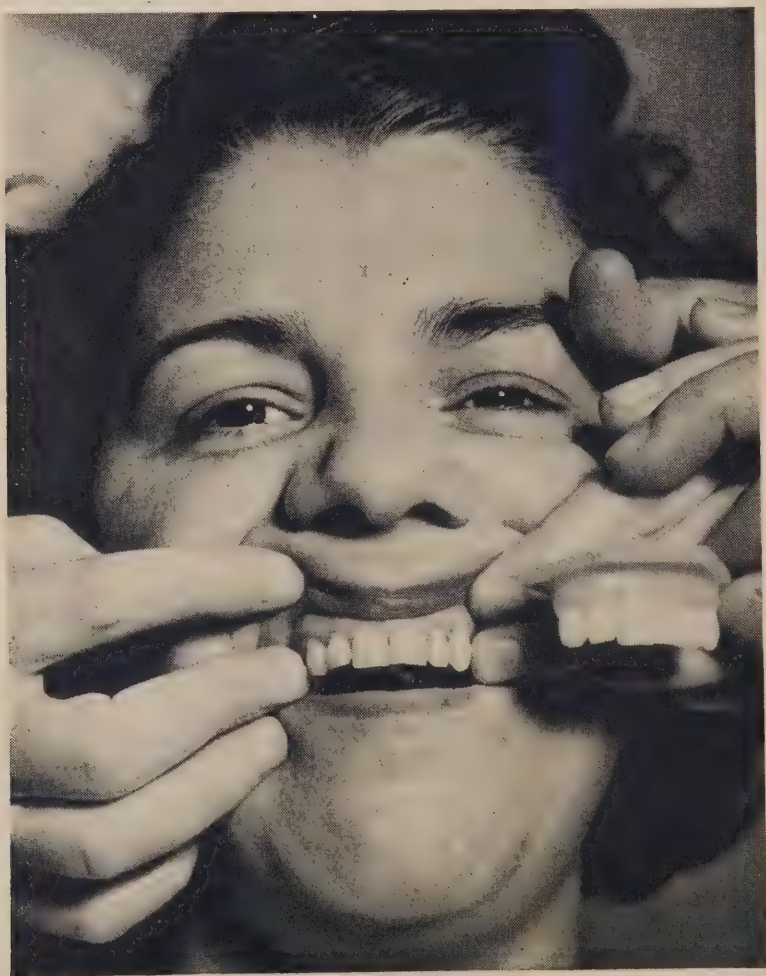


FIG. 1—Dents du patient "in situ" et reproduction en acrylique.

à l'aide du guide et celles déterminées par l'échelle étant bien établie, l'on procède au mélange des poudres afin de réaliser tout d'abord la couleur gingivale et ensuite l'incisive, ayant soin d'agiter le mélange pour conserver l'uniformité de la couleur.

Le dépôt de ces mélanges, fait de la façon précitée, est ensuite recouvert d'une feuille de cellophane mouillée.

Soumis une première fois à la presse, le moufle sera réouvert afin de bien se rendre compte de l'exactitude de l'apparence et de la quantité.

A ce stage, la reproduction des obtura-

tions, lignes soutenues etc... peut se faire aisément à l'aide d'un instrument tranchant. La peinture à l'eau vient ensuite compléter l'illusion. Il faut toutefois ne pas omettre de protéger le tout en le recouvrant de poudre transparente, suivie de quelques gouttes de liquide.

Le moufle est alors refermé définitivement et la cuisson terminera la première phase de ce procédé.

Il y a lieu de s'assurer maintenant une empreinte supérieure complète et précise. Celle-ci terminée, une deuxième, des dents inférieures cette fois, est prise pour fins d'articulation et de montage. L'oc-



FIG. 4—Prothèse mise en place.

clusion centrique s'obtient parfaitement au moyen de plaque-base et de boudins de cire.

produit, l'incorporation de la section en acrylique se fait tout naturellement.

Soumis à l'approbation du patient, le



FIG. 2—Deux empreintes des dents antérieures.

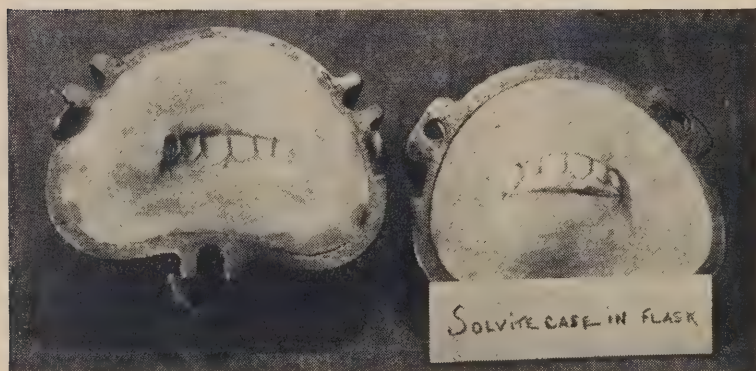


FIG. 3—Façon d'ouvrir le moufle pour les corrections finales.

Les modèles étant articulés, l'on procède ensuite au montage des dents postérieures et à l'essayage de celles-ci. Un tracé au crayon facilitera le détachement des dents du modèle. Dans le vide ainsi

dentier est mis en place aussitôt après l'extraction.

Dans mon humble opinion, ainsi réalisée, cette substitution ne peut qu'augmenter le prestige de notre profession.

48 rue Rideau OTTAWA



CHEZ NOUS ET AILLEURS

Dévoilement de la plaque de bronze du Mémorial Théo. Coté

Mercredi, le 29 janvier, avait lieu, à l'Université de Montréal, la cérémonie de dévoilement d'une plaque commémorative à l'effigie du Dr Théo. Côté, ancien professeur de la Faculté de chirurgie dentaire.

C'est Mgr Olivier Maurault, recteur de l'université, qui a présidé au dévoilement, soulignant le précédent ainsi créé par la Faculté d'art dentaire, et incitant les autres facultés à suivre cet exemple. "Voilà, dit-il, une façon tangible, pour les anciens élèves du Dr Côté, d'exprimer leur reconnaissance envers celui qui fut leur professeur."

Le doyen de la Faculté, le Dr Ernest Charron, soulignant que les anciens élèves du Dr Côté ont défrayé le coût de cette plaque, a ajouté que le surplus de la somme récoltée a été déposé à une banque et que l'intérêt servira à créer un prix à perpétuité pour un élève de chirurgie dentaire. Le doyen a félicité l'instigateur du mouvement, le Dr Gérard de Montigny.

Plusieurs professeurs de l'Université, les parents du Dr Côté ainsi que nombre d'anciens élèves de ce dernier ont assisté à la cérémonie.

Honneur conféré à l'un des nôtres

Le docteur Albert Laferrière, de Montréal, vient d'être nommé membre actif de l'American Academy of Dental Medicine.

On sait que cette association se propose de promouvoir les recherches dentaires dans l'étude des causes des pathologies buccales, en mettant en branle toutes les sciences connexes à la dentisterie.

Mémorial de Guerre de l'A.D.C.

Les sommes souscrites par les différentes provinces à un fonds, qui servira à des bourses d'études attribuées aux élèves des différentes facultés dentaires du Canada se chiffrent aux montants suivants, en date du 9 novembre 1946. Colombie Britannique: \$500.00;

Alberta: \$814.00; Saskatchewan: \$902.00; Manitoba: \$500.00; Ontario: \$2644.00; Québec: \$1096.00; Nouvelle-Ecosse: \$522.00; Nouveau-Brunswick: \$520.00; Ile-du-Prince-Edouard: \$000.00. Intérêts: \$5.59. Total: \$7,503.59.

Congrès national de l'Association Dentaire Canadienne

Le congrès national de l'Association Dentaire Canadienne tiendra ses assises, cette année, à Digby, Nouvelle-Ecosse, sur les rives du bassin d'Annapolis. A cet endroit, en 1605, de Monts et Champlain fondaient le premier établissement permanent de colons en Amérique du Nord, plus haut que la Floride. L'habitation", le fort primitif érigé par de Monts, a récemment été reconstruit d'après des plans originaux retrouvés dans un musée de Boston; le puits véritable est contigu à cette réplique exacte dans tous ses détails, reproduction, qui est un hommage à l'ingéniosité de ses premiers constructeurs.

Digby est à 90 milles de la région d'Évangéline et sur la limite du coin sud-ouest de la Nouvelle-Ecosse, dont la population est en grande partie acadienne et de langue française. Les conférenciers et les cliniciens, cette année, viendront des Etats de l'est des Etats-Unis. Ce choix est motivé par des raisons géographiques et pour permettre aux membres de l'Association d'entendre des praticiens de valeur, qui ne pourraient se rendre facilement dans d'autres régions du Canada. Malheureusement à cause du manque de fonds et de temps, il est impossible d'inscrire au programme, des conférences en langue française, pour les dentistes, qui ne sont pas bilingues. A ceux qui ne parlent pas l'anglais, le comité d'organisation offre l'hospitalité néoécossaise, partie importante du programme.

La réunion aura lieu au Pines Hotel de Digby, les 24, 25, 26 et 27 juin. Comme les disponibilités de l'hôtel sont limitées, il est urgent que ceux, qui se proposent de s'inscrire, avertissent le comité avant la fin de février. Le docteur H. S.

Crosby, édifice Birks, Halifax, est en charge des réservations. Celles-ci ne peuvent être garanties après février, à cause du manque d'espace. Un questionnaire sera envoyé à tous ceux, qui projettent d'assister à ce congrès national, et les détails de leur voyage sera réglé, par la suite, par lettre personnelle.

Séance de janvier de la Société dentaire de Montréal

Le conférencier invité pour la séance de janvier était le docteur S. McGregor, de Toronto, qui parla du "Maniement des Enfants". Le Dr McGregor exposa les grands principes de psychologie, qui doivent guider le praticien dans sa conduite vis-à-vis des petits et donna des recettes, mises à l'épreuve par l'expérience.

Une assistance nombreuse reçut ce spécialiste de marque.

Revision des honoraires dentaires du D.A.V.

Le communiqué suivant vient d'être livré par le directeur des Services Dentaires du Département des Affaires des Vétérans: "Un amendement à la liste des honoraires payés pour les services dentaires vient d'être fait par le Département des Affaires des Vétérans et devient effectif à partir du 1er octobre 1946.

Radiographies et diagnostic:

- 1) pellicule simple intra-orale\$ 2.00
- 2) toute pellicule supplémentaire \$ 1.00
- 3) Radiographie totale, supérieure ou inférieure (7 pellicules)\$ 6.00
- 4) Radiographie totale de la bouche (14 pellicules au plus)\$10.00

Quatorze jubilés d'argent et deux élections de gouverneurs célébrés par nos dentistes à Drummondville

La Société dentaire des Trois-Rivières et du district a siégé et dîné samedi soir, le 23 novembre, au Manoir Drummond, inaugurant d'une sérieuse et fraternelle manière sa saison 1946-47, saison qui comportera une conférence par mois jusqu'au printemps et un grand dîner à Louiseville au début de l'été.

Les dentistes de la région trifluvienne se sont réunis ici au nombre d'une soixantaine environ et ils étaient accompagnés de leurs femmes. Leur réunion avait trois objectifs principaux:

La célébration des deux nouveaux gouverneurs du district, officiers du Collège des chirurgiens-dentistes, MM. les Drs Maurice Lafontaine, de Drummondville, et Robert Trudel, de Louiseville.

Une autre célébration fut celle du jubilé d'argent de quatorze dentistes de notre région qui pratiquent l'art dentaire depuis vingt-cinq ans et plus.

La soumission aux membres de notre société dentaire d'un programme d'activités culturelles et sociales très chargé et très instructif pour 1946-47.

Le président de la société et du banquet, M. le Dr Roméo Beaudry des Trois-Rivières, a prononcé une brève allocution à l'issue du dîner, exposé ce triple objectif de la réunion et lancé un mot d'ordre qu'on pourrait résumer comme suit: une coopération très étroite entre tous nos dentistes, coopération dans l'étude et dans les loisirs, coopération dont tout le monde profitera, le public en général, la Société dentaire des Trois-Rivières et du district et tous les membres de cette association professionnelle.

M. le Dr Conrad Godin, des Trois-Rivières, a agi comme maître de cérémonie.

Les jubilaires

Les dentistes, dont le jubilé d'argent de pratique a illustré cette chaleureuse convocation de samedi soir, sont MM. le Dr Auguste Massicotte, des Trois-Rivières, chevalier de l'ordre de Saint-Sylvestre (1919); le Dr P.-L. Daigneault, de Thetford-les-Mines (1908); le Dr Edmond Buisson, des Trois-Rivières

(1909); le Dr Henri Robert, des Trois-Rivières (1909) le Dr J.-O. Cyr, de Thetford-les-Mines (1912) le Dr E. Précourt, de Drummondville (1912); le Dr J.-R. Hébert, de Shawinigan (1917); le Dr Emile Venne, de Grand'Mère (1918); le Dr A. Therrien, de Shawinigan (1919); le Dr J.-N. Manseau, de Nicolet (1919); le Dr J.-B. Dorval, du Cap-de-la-Madeleine (1920); le Dr M. Morin, de Plessisville (1920); le Dr J.-G. Landry, des Trois-Rivières (1920); le Dr J.-E. Laroche, de Victoriaville (1920).

A tous ces jubilaires, le président M. Beaudry, a exprimé la reconnaissance de leurs confrères plus jeunes, qui marchent sur leurs traces et qui veulent être dignes du prestige et de l'expérience dont les aînés ont doté la société dentaire.

Les benjamins

La Société dentaire des Trois-Rivières et du district a aussi célébré ses nouveaux membres, ses benjamins, dont le Dr Godin a fait la nomenclature. Ce sont MM. les Drs F. Auger, de Victoriaville; C.-A. Beaudet, de Shawinigan; Roland Baribeau, des Trois-Rivières; P. Boissonneault, de Thetford; Bernard Beaudoin, des Trois-Rivières; N. Chapdelaine, de Thetford; J. Després, de Saint-Tite; P.-L. Dugal, de Drummondville; E. Dubord, de Victoriaville; Yves Dufresne, des Trois-Rivières; G. Fortin, de Thetford; C. Hébert, de Shawinigan; A. Jacob, de Shawinigan; P. Lalande, de Drummondville; R. Lamothe, des Trois-Rivières; M. Laferrière, de Drummondville; L. Lavergne, de Shawinigan; G. Letendre, de Drummondville; J.-J. Laforce; E. Proulx; J.-J. Rinfret, de Louiseville; et J.-B. Saindon, de Drummondville.

Ce sont ces jeunes gens que le président, le Dr Beaudry, a accueillis officiellement au sein de l'organisation, en déclarant: "Il y a toujours de la place chez nous pour un vrai professionnel."

Leurs Majestés de 1947

Vers la fin du dîner, les dentistes ont élu leur roi et leur reine pour l'année 1947. Leurs Majestés de la Société des

Trois-Rivières et du district sont M. J. M. Chapdelaine, de Plessisville, et Mme E. Précourt, de Drummondville. Le couronnement du roi et de la reine a eu lieu immédiatement et ceux-ci ont pris place aux fauteuils d'honneur.

Quelques télégrammes

Ce dîner de notre société dentaire était sous le haut patronage de M. le Dr Albert Surprenant, président du Collège des chirurgiens-dentistes de la Province de Québec. Celui-ci s'est excusé de ne pouvoir être présent et il a fait part de ses meilleurs vœux à ses confrères trifluviens.

Le Dr Beaudry a aussi donné lecture des télégrammes expliquant l'absence et formulant les vœux de MM. les Drs Auguste Massicotte, Henri Robert, Frédéric Houde et Yves Dufresne, des Trois-Rivières.

Le président et le maître de cérémonie ont tour à tour salué la présence au dîner de M. le Dr Alphonse Plessis-Bélaïr, gérant-général du Dépôt dentaire de Montréal, organisation coopérative des dentistes, et M. le Dr Eugène Lussier, aussi de Montréal.

Un congrès à Québec

Le Dr Viger Plamondon, gouverneur du district de Québec a prononcé avec beaucoup d'humour une allocution faite de calembour sur la personne des jubilaires qu'on célébrait, ce soir-là. Il a contribué pour une large part à la gaieté qui a régné durant tout le dîner.

Le Dr Plamondon a en même temps annoncé une nouvelle très importante, celle de la convocation à Québec en 1948 du congrès national des chirurgiens-dentistes du Canada. Le congrès aura lieu au Château Frontenac et de Dr Plamondon a promis qu'on y tiendrait compte du caractère bilingue de notre pays.

Il fut de plus question au dîner du grand congrès des dentistes de langue française de l'Amérique du Nord qui aura lieu en juin, du congrès national de cette année qui aura lieu à Digby, N.-E., et du congrès pan-américain qui aura lieu à Boston, aussi en juin.

Le programme de l'année

Le programme de la saison 1947 a été annoncé par le Dr Conrad Godin, Le voici en raccourci:

14 décembre, 8 h. du soir, salle de lecture du Séminaire Saint-Joseph des Trois-Rivières, conférence par le Dr de Montigny, de la Revue dentaire canadienne.

15 janvier, au même endroit, conférence médico-dentaire par le Dr Paul Plourde, qui vient de terminer ses études à Harvard.

Février, le Dr Eugène Lussier.

Mars, clinique pratique avec conférencier; le nom du conférencier, la date et le lieu seront annoncés plus tard.

Avril, conférence à Shawinigan par le Dr Aimé Coutu, d'Ottawa.

Mai, clôture de l'année 1946-47 par un grand banquet à Louiseville, avec invités de Montréal, de Québec et des sociétés dentaires de la Province.

Au début de juin, élection de l'exécutif.

L'esprit du mouvement

La société dentaire des Trois-Rivières et du district groupe les dentistes des Trois-Rivières, de Shawinigan, du Cap-de-la-Madeleine, de la Tuque, de Grand'Mère, de Louiseville et des environs sur la rive nord, et ceux de Drummondville, de Victoriaville, de

Plessisville, de Thetford-les-Mines, de Nicolet et des environs sur la rive sud.

Elle connaît présentement un impressionnant regain d'activités sous la direction d'un exécutif tout à fait dynamique.

Nos dentistes prennent très au sérieux les affaires de leur mouvement. Le dîner de samedi soir l'a illustré on ne peut mieux. L'esprit du mouvement est à la coopération et à l'entente. La société dentaire veut servir ses membres en les instruisant et en les récréant. Son programme de la saison l'illustre amplement.

Une magnifique canne a été donnée, par la société à ses jubilaires. Ceux qui étaient absents recevront leur cadeau à la prochaine réunion. Deux des jubilaires ont reçu leurs cannes des mains de leurs fils, aussi membres de la société. Ce sont MM. Cyr, de Thetford, et Hébert, de Shawinigan.

Un programme de chant a été exécuté durant le dîner. MM. les Drs Paul Dugal, de Drummondville, Jos. Houle de Drummondville, Robert Trudel, de Louiseville, et Louis Lacoursière, de Shawinigan, ont chanté à tour de rôle.

M. le Dr Beaudry a remercié les confrères de Drummondville de la réception faite aux membres de notre société dentaire. Le gouverneur Maurice Lafontaine, de Drummondville, a répondu à ces remerciements en invitant les confrères à revenir ici chaque fois que l'occasion se présentera.

NOUVEAU PROCÉDÉ HEMOSTATIQUE

Les auteurs sans nier la valeur des procédés connus jusqu'à maintenant proposent des éponges de gélatine très légères, assez résistantes, pouvant absorber cinquante fois leur poids d'eau, trempées préalablement dans une solution de thrombine. La tolérance serait très bien supportée et la résorption assurée. Il serait intéressant d'utiliser ce moyen hémostatique dans des hémorragies graves, après extractions dentaires, certains kystes paradentaires, péri-coronaires ou autres tumeurs du maxillaire. (Drs Leger et Cruet, Presse médicale No. 40, 31 août 1946.).





PAGES EDITORIALES

COMITE DE REDACTION

Président:

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D.

Assistant:

ARMAND FORTIER, D.D.S., I.D.S.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., I.D.S.

397 est Boul. S.-Joseph, Montréal

CONTROLE DE LA PROFESSION PAR LE GOUVERNEMENT DE SASKATCHEWAN

Les journaux nous rapportaient, récemment, une nouvelle propre à faire réfléchir tout membre d'une profession organisée. Le gouvernement au pouvoir, en Saskatchewan, avait, paraît-il, inscrit à l'agenda de la prochaine session un bill, qui portait atteinte à l'autonomie des groupes professionnels de cette province.

Ce projet de loi enlevait aux associations professionnelles, déjà existantes, la faculté de conduire leurs propres affaires, en leur substituant des organismes provinciaux, qui auraient dicté aux professionnels de chaque groupe leur ligne de conduite, leur réglementation, leurs mesures disciplinaires, leurs honoraires, etc.

Les professionnels visés étaient les médecins, les avocats, les chiroprates, les ostéopathes, les arpenteurs, les ingénieurs, les professeurs de musique, les embaumeurs, les optométristes, les thérapeutes, les agronomes, les vétérinaires, les pharmaciens, les architectes, les comptables, les dentistes et les garde-malades. Ce projet de loi devait être surveillé, puisqu'il signifiait un empiètement considérable sur les droits des organisations, comme sur ceux des individus.

Le conseil du Collège des Chirurgiens-Dentistes de la province de Saskatchewan, accompagné du Secrétaire de l'Association Dentaire Canadienne, a rencontré, le 21 janvier, le Premier Ministre Douglas (aussi Ministre de la Santé) pour discuter ce projet de loi. Cette question fut développée en détail. M. Douglas fit part aux délégués, d'une façon catégorique, du retrait de cette législation, avant même qu'elle ne fut discutée par la Chambre, à la prochaine session. De plus, il déclara que tout changement projeté aux modes d'administration présents de toute profession serait d'abord soumis aux corps dirigeants de ces professions, pour discussion et approbation.

Pour mettre fin aux rumeurs, qui avaient cours, depuis quelque temps, il annonça que le bill envisagé n'avait pas été approuvé par un sous-comité du Comité d'Amendement et que, par conséquent, la proposition avait été écartée, à son stage initial.

Au cours de l'entretien, les deux modes de réglementation des professions furent discutés. D'abord, la façon actuelle, c'est-à-dire, celle par laquelle les professions conduisent leurs destinées elles-mêmes et ensuite, la régie des professions par le Gouvernement. A son avis, les deux méthodes sont susceptibles d'abus. M. Douglas croit qu'aussi longtemps que les groupes professionnels n'abuseront pas de leurs privilèges, il n'y aura pas lieu de modifier cet état de choses. Il n'a pas de plainte à porter contre l'administration des professions, dans le passé. Cette entrevue fut des plus satisfaisantes et le Premier Ministre paraissait désireux d'enlever tout doute de l'esprit des professionnels, quant à leur avenir.

Il faut se féliciter de la tournure, qu'ont pris ces événements, grâce aux efforts conjugués des dentistes de cette province et des dirigeants de l'Association Dentaire Canadienne. Deux leçons peuvent être tirées de cet incident. 1) Les gouvernements ont des idées de socialisation des arts médicaux et les professionnels doivent avoir les yeux ouverts sur ces projets et agir promptement; 2) l'Association Dentaire Canadienne est l'organisme tout désigné pour éclairer les gouvernants sur cette législation sociale, à cause de sa documentation et des études faites par ses divers comités sur ces questions.

G. DE M.

La voix du Pape

La haute mission des médecins-dentistes

L'Association des médecins-dentistes d'Italie a siégé à Rome. A l'issue de leurs séances, les congressistes se sont rendus à Castelgondolfo auprès du Saint-Père, qui leur a adressé un discours. Faisant preuve d'étonnantes connaissances techniques, le Pape s'est appliqué à relever les caractéristiques de la profession de dentiste, ainsi que la mission morale et sociale qu'elle comporte.

Combien, parmi les profanes, songent à la somme d'études et de connaissances qu'exige la profession de dentiste, aux efforts pénibles parfois qu'elle demande, aux vertus morales qu'elle porte à pratiquer?

Le dentiste a besoin, avant tout, d'une vaste science: science de la médecine générale, afin de percevoir et de discerner l'action et la réaction réciproque de l'organisme, des organes et des tissus, multiples et délicats, qui sont l'objet de vos soins; science approfondie et détaillée de chacun de ces organes et de ces tissus;

ils sont d'une sensibilité extrême et en même temps d'une grande complexité recueillis dans le petit espace de la cavité orale, ils sont le siège des fonctions les plus diverses et les plus importantes, mais aussi de nombreuses altérations et d'indicibles souffrances. Le dentiste a besoin de connaître la physique et la chimie, la botanique et la pharmacologie. Autant de connaissances qui lui permettent de découvrir les origines du mal et d'y apporter des remèdes appropriés.

Il lui faut, en outre, un art exquis, fait d'intuition naturelle et d'expérience ac-

quise à force de temps et d'attention, pour diagnostiquer les causes, éloignées parfois et souvent cachées derrière les symptômes extérieurs visibles ou autrement sensibles. A cet art, de caractère intellectuel, doit se joindre une habileté à préparer et exécuter des travaux de la plus grande précision, avec la parfaite exactitude et avec la sûreté de l'oeil et de la main qu'ils exigent.

Il faut enfin un tact et un sens psychologique des plus fins, pour posséder la force de persuasion et l'autorité morale souvent nécessaires pour prévenir ou vaincre les répugnances ou les appréhensions instinctives, d'ordinaire encore plus pénibles et plus rebelles que la souffrance elle-même.

De combien de constance, poursuivait la Pape, de combien de patience, de combien de résistance physique n'avez-vous pas besoin ! Quelle fatigue n'avez-vous pas à supporter—beaucoup de vous durant des journées entières, durant de longues années,—dans une tension continuelle de vos sens, de vos nerfs, de tout votre corps, de votre esprit, de votre volonté, de votre sensibilité, toujours debout, dans une position souvent incommode, les yeux fixés dans l'attention ; chacune de vos deux mains est occupée, elles doivent rester agiles, éviter de contracter les doigts lorsqu'elles manient plus d'un instrument à la fois, tous mouvements rendus souvent difficiles par les réflexes et les réactions du patient qu'il n'est pas toujours possible d'empêcher ! Et dans cette application intense, vous devez maintenir immuable votre calme, votre politesse, votre douceur, votre esprit de charité.

La profession de dentiste a aussi son aspect social. Qu'on pense seulement à l'importance qu'a, dans la vie privée et publique de l'homme, chacune des parties, organes, tissus, muqueuses, muscles, nerfs, glandes, vaisseaux artériels et veineux, dont l'ensemble se trouve renfermé dans la bouche. Un désordre quelconque, une légère altération d'un de ces éléments peut avoir sa répercussion sur la santé, sur le bien-être, sur le caractère, sur le rendement du travail, sur les relations de l'homme avec ses semblables.

Des conditions bonnes ou mauvaises de l'appareil dentaire et salivaire dépendent les fonctions bonnes ou mauvaises de l'appareil digestif, et, par conséquent, de tout l'organisme. De l'état bon ou mauvais du tissu épithélial et des différentes papilles de la langue dépendent les sensations spécifiques du goût, sensations dont on peut abuser et dont on abuse, de fait, trop souvent, mais qui en elles-mêmes sont utiles pour le choix et l'usage des aliments. Une légère douleur, un malaise entre les gencives suffisent parfois pour irriter le système nerveux et ôter à un homme la sérénité de l'esprit : signe humiliant, mais manifeste de la faiblesse humaine.

Qui ne sait, en outre, combien la conformité et l'intégrité du palais, de la langue, de la denture, des parois internes des joues, des mâchoires et des lèvres influent sur la voix de l'homme, sur son ton et sur sa clarté, sur l'articulation des paroles ? Tout cela a une grande importance, qu'il s'agisse de l'activité de l'orateur, du lecteur, du professeur, ou des simples relations de la vie quotidienne, du charme de la conversation, ou de la capacité élémentaire de se faire comprendre.

Plus mystérieux et plus surprenant encore est le rôle silencieux que joue la bouche dans l'expression du caractère et des sentiments : cette expression ne paraît pas seulement sur le front et dans les yeux, mais aussi sur la partie inférieure du visage : un simple pli des lèvres la nuance à l'infini.

Durant la première guerre mondiale, la science et l'art de la stomatologie fournirent des preuves lumineuses de leur pouvoir et réalisèrent des progrès gigantesques. On peut bien parler de résurrection morale et sociale en songeant à tant de victimes de la guerre, des accidents et des tumeurs, qui ont bénéficié des progrès de la stomatologie ; terriblement déformés ou mutilés, ces visages faisaient une impression d'horreur que même la tendresse la plus affectueuse ne réussissait pas toujours à dissimuler entièrement.

Pour venir en aide à tant de malheureux, les différents spécialistes de la stomatologie ont uni leur science et leur

habileté, tous les moyens fournis par les progrès les plus récents: radiographie, anesthésie, chirurgie, prothèses, greffes, mécanique et plastique. Ils ont apporté à cette oeuvre tout leur coeur d'homme et, beaucoup d'entre eux, toute leur charité de chrétiens. Et voilà que des mains de ces admirables sculpteurs, de pauvres ruines humaines, atterrées, la veille encore, à l'idée d'une vie en marge de la société, découragées, peut-être désespérées, sont sorties belles et vigoureuses, prêtes à reprendre leur place dans

le monde et à remplir la tâche qui leur a été assignée.

"Vous avez le droit d'être fiers de leur reconnaissance et de celle de leurs familles, conclut le Saint-Père, fiers d'avoir fourni une collaboration aussi noble à l'ouvrage du Créateur. Ne doutez pas qu'Il vous bénisse avec Nous, son humble représentant sur terre, Père commun de ceux qui souffrent et de ceux qui guérissent les malades".

G. H.

—(Liberté, de Fribourg, Suisse,
9 novembre).

★



Photographie de la plaque commémorative érigée à la mémoire du docteur Théo. Côté, professeur à la Faculté de Chirurgie durant au delà de vingt-cinq ans.

Cette plaque de bronze est l'oeuvre de l'artiste bien connu, Robert Pelletier, professeur agrégé de dessin à la Faculté de Chirurgie Dentaire.

H. M. EATON, D.D.S.
Halifax, Nova Scotia.

Chairman of Joint Convention Committee
in charge of National Convention of
Canadian Dentists.

Vice-President, Nova Scotia Dental Association.

Professor of Dental Radiology,
Dalhousie University.

Associate Examiner, Dominion Dental Council.



National Convention of Canadian Dentists
June 24-27

● Arrangements are rapidly nearing completion for the National Convention this summer at Digby, Nova Scotia. All indications point to a large and enjoyable meeting.

Entertainment is no small part of the program. The ladies' committee is being headed by Mrs. J. Stanley Bagnall and special features are being arranged while clinics are in session. Hotel facilities are provided for golf, swimming and other sports, and the spacious lawns of the hotel provide a restful atmosphere for those who wish merely to relax.

We are all looking forward to an enjoyable get-together. June is calling, with the added tonic of sea breezes and sparkling water. Dr. H. S. Crosby, Birks Bldg., Halifax, is still receiving reservations. If you are coming, don't delay in communicating with him.





ALBERT SURPRENANT, D.D.S.

Montreal, Quebec.

President of the College of Surgeon-Dentists of the Prov. of Quebec.

Vice-President of the Dental Hygiene League of the Prov. of Quebec.

Member of the Provincial Board of Cinema Censors of the Prov. of Que.

Vice-President of the Addington Inc. Hunting and Fishing Club.

Past Member of the Repression of Illegal Practice, Legislation, and
Dental Hygiene Committees of the College of Surgeon-Dentists
of the Prov. of Quebec.

Governor of the College of Surgeon-Dentists of the
Prov. of Quebec since 1930.

Past Official of the National Hockey League.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, APRIL, 1947

NO. 4

GOLD FOIL *

by GERALD D. STIBBS, B.Sc., D.M.D., Vancouver, B.C.

INTRODUCTION

WHEN contemplating the preparation of a presentation on gold foil for a meeting such as this, one cannot but meditate a bit on the paradoxical position held in dentistry by gold foil.

It is one of the earliest of filling materials. There are other means of filling teeth; yet, where foil is indicated, no operative dentist of sound judgment and ability will deny that it is the restoration of unquestioned superiority. It has remained, through the years, the yardstick of operative ability and dental restorative perfection.

However, this material fell into disuse for a time, in all but a few isolated areas in the world. The reason, of course, was that too many were waiting for an easy panacea, rather than settle down to the task of acquiring an adequate technique to handle gold foil in an efficient, practical manner. As a result there have been two developments. First, the turning to other materials,—most of which have proven inadequate, even when more care is used in their manipulation than is required for foil.

The second development has been a tendency to emphasize the preventative phase of dentistry. Such efforts are laudable. Our research workers have struggled valiantly and sincerely in a fight to prevent dental caries. Some progress has been made, and

undoubtedly the future holds promise of greater achievements in this field. In the meantime, however, too many of the practising members of the profession have continued to await the millennium, and to fill in the time by extracting teeth, (many of which could be made serviceable for years by proper restorative means), and then fitting out the resultant cripples with pieces of prosthetic jewelry.

It has been commonly observed that at a convention such as this, the clinics which draw the greatest crowds are those which deal with the blood and thunder, — the extractions and alveolectomies, and the beautiful, expensive, triple-suction replacements!

A pitifully few of the profession have realized that until research finds the means of preventing the onset of caries, we can and should practice the most reasonable and practical approach to the problem yet known. That solution is the arresting of decay by the careful restoration of lost tooth structure in the first stages of the destructive process by means of the most permanent filling material at our disposal. And what is that material? The previously mentioned yardstick of perfection—Gold Foil.

A perusal of the program shows that the committees in charge have endeavoured to produce a very complete and well-rounded panoramic view of the many phases of modern dentistry.

* Presented before the National Convention of Canadian Dentists, Toronto, Ontario, May 28, 1946.

They are to be commended for seeing fit to give operative dentistry a prominent place in their plans. Yet, is it flattering to us as a profession that our desires should be so accurately interpreted, that out of twenty different group clinics only one is required on gold foil?

However, a little light is better than none, especially in the dark. There is hope for a more widespread revival of sound operative procedure. Whereas, in the past, many meetings have had no evidence of gold foil on their programs, today no really progressive program committee considers its lineup of clinics complete unless some place is given to foil. Speed the day when, as a matter of course, they will present to us not only one paper on gold foil, but what is of more value, groups of chair clinics, showing actual cavity preparations and methods of manipulating the material.

The disfavour accorded foil for a time was a natural reaction to the mistaken enthusiasm which engendered an era of sittings of many hours to insert huge fillings with the automatic mallet and which resulted in premature aging of the operator, premature death of the pulp, and a prayer for delivery by the patient.

However, recent leaders in operative dentistry have diligently refined gold foil technique, and have determined the common sense indications and contra-indications for its use. As a consequence, the operation has been standardized so as to make it one of comparative ease for the patient, freedom from hazard for the tooth, and a definite pleasure and stimulus for the operator.

It is my hope to bring to your attention some of these refinements in procedure. Many of you know of them; some are using them. Perhaps you will bear with the review while the few others hear of them, either for the first time, or from a different viewpoint than before. It must be confessed that the information is not offered as

being original in any sense. Rather, it has been absorbed over a period of some ten years spent in active gold foil study club participation, and to the leaders of the study clubs sincere gratitude is acknowledged.

The points to be brought out are principles and details of technique as being taught for the past twenty-five years by Dr. W. I. Ferrier of Seattle, and as currently reviewed and emphasized in the Vancouver Ferrier Study Club by its instructor, Dr. G. A. Ellsperman of Bellingham, Washington.

STUDY CLUBS

Let me here say a word in favour of study clubs. It is only by group study and constant criticism that one's proficiency in technique develops. From a paper or discussion such as this, some points are picked up; the occasional operator will absorb enough of a technique to utilize it 'in toto' in his practice; but the most good is achieved, and the finer points are learned only by months and years of consistent study club participation. As a case in point, Dr. Ferrier's original group in Seattle has been meeting regularly each month for twenty-five years. The members would not miss a meeting for any reason short of a broken leg, and they each realize that they are learning all the time. They know, too, that their practices are of the calibre they are as a direct result of their membership in a gold foil study club.

One cannot but feel that it would be of unlimited value for more groups of sincerely interested individuals to organize foil study clubs under competent guidance, making the entrance requirements such that only those who mean business will be admitted, and then stick to it and experience the thrill and joy of feeling one's ability and judgment develop, no matter from what degree of accomplishment the effort commences. The acquisition of dexterity in the use of gold foil is at once challenging and stimulating.

PRE-REQUISITES

In entering upon a consideration of gold foil, one of the first pre-requisites is the rubber dam. In past years the rubber dam has been subjected to all the indignities and negligence usually accorded an ugly duckling. Some men even boast of having no dam in their offices. As Dr. Prime of Omaha has said—"they might just as well boast of not washing their hands." For some reason the technique of application has been made unnecessarily cumbersome and time consuming, and in some cases even damaging to the very tissues it was supposed to protect. In actual fact the application of a rubber dam should be a procedure as effortless and natural as putting on your tie. It should take only two or three minutes to accomplish, including the placing of necessary clamps and blocking them with compound. The value of the dam and the technique of application have been well covered previously in the literature. Two articles I would particularly recommend that you re-read are the ones by Dr. H. M. Cline in the *Journal of the Canadian Dental Association*, January 1940, and by Dr. G. A. Ellsperman in the June 1944 issue of the same publication. General principles to be pointed out are to standardize the placement as much as possible in each case. Your nurse then knows what to expect, a closer co-operation will be developed, and the time element will be practically eliminated as a factor in the operative procedure. Another cardinal principle is that is is never necessary to ligate teeth to place or retain a rubber dam. That little stunt is one of the finest ways to assure the patient of an early visit to a periodontist. It might be said that inaugurating the daily use of the rubber dam is the beginning of wisdom in operative dentistry.

The second of the pre-requisites to a gold foil operation is, of course, proper armamentarium. Under this heading would be included instruments and gold foil. In respect to instruments,

finely-made accurate hand instruments are a distinct advantage. Such are now available. Remember that instruments must be kept keenly sharpened. It may be necessary to sharpen an instrument one or more times during the preparation of a cavity. Consider, too, that only about one millimeter of the blade of an instrument is properly tempered, and that with sharpening the effective life of an instrument is soon expended. However, they are reasonable in price and should be discarded or sent in for re-cutting as soon as their best purpose has been served. The best of operators would be seriously handicapped with dull, worn-out instruments; therefore, the average one of us is deliberately practising the "hard way" if he keeps sharpening his instruments right up to the handle. Burs are, of course, included with instruments. Use fine, sharp, true burs and discard them or set them aside for less exacting work after the first use. Get fun out of your foils,—and one of the best ways to do that is to work with tools in the best of condition.

For the placing of the gold, hand instruments are used. Condensation is accomplished by a combination of hand pressure by the operator, augmented by blows from a mallet in the hand of the assistant. A rhythmic teamwork is acquired so that there are two mallet blows for each placing or stepping of the plugger. The plugger point is moved systematically half of its diameter each time, condensing the gold in regular rows. This avoids the occurrence of soft spots in the filling and also makes the gold flow progressively in the direction in which the plugger is inclined.

There are a few locations in which the mallet and hand pluggers are not the easiest means for gold condensation. These areas include gingival cavities on lingual surfaces of molars, lingual pits in upper anteriors, and occlusal pits and fissures of lower molars. In these locations the right angle attachment of the Hollenback

pneumatic condenser gives direct access to the cavity.

The gold used is No. 4 non-cohesive foil, obtained in book form and prepared by the assistant during spare moments. The advantages of so preparing it are that the pellets are of known size and bulk, and the cylinders, which are used in the non-cohesive state, are far superior to any machine-made forms at present available. The 4-inch square sheet of gold is cut into 1/8ths, 1/16ths, 1/32nds, and 1/128ths, and rolled into pellets for use in the cohesive state; sheets are also cut into 1/2's, 1/4's, 1/8ths, and 1/16ths, and then folded and rolled on a jeweller's broach into cylinders for non-cohesive gold. The non-cohesive gold pellet is rendered cohesive by heating it to a red colour over an alcohol flame.

The preparation of the various classes of cavities and the filling of them has been well and thoroughly written by Dr. Ferrier in the *Journal of the American Dental Association* in April 1934, March 1936, and May 1941; by Dr. G. A. Ellsperman in the March 1940 issue; and by Dr. R. E. Hampson in the July 1942 issue of the same publication. It is well worth your while to read and reread these excellent papers. For the benefit of those who may not have access to them, permit me to summarize the essentials for each of the major classes of cavity.

CLASS 5 CAVITIES

The first class of cavity to be considered is the Class 5 or that occurring in the gingival third of the tooth. It is difficult to understand how the profession can be satisfied with any other filling material than gold foil in these areas, unless it be for the comparatively few cavities which, for aesthetic reasons, demand a compromise with perfection by placing porcelain inlays.

Most of you are acquainted with the preparation for this type of dental defect whether it be erosive or carious in origin. The rubber dam is applied, and a well designed gingival clamp

such as the Ferrier No. 212 is placed, and blocked to position with modelling compound (Fig. 1). It is never necessary to cut or reflect the gingival tissue for access to these cavities. The bow of the clamp will carry the soft tissue out of the way and protect it from injury during the operation. In the large majority of these areas of

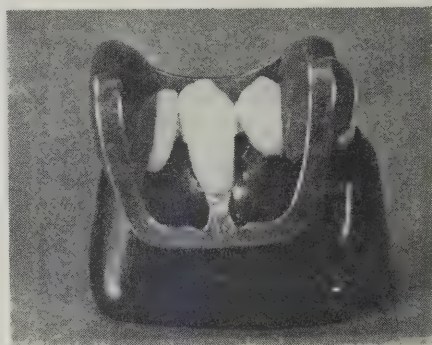


FIG. 1

Ferrier gingival clamp in position and blocked with modelling compound.

erosion or caries, observation will show the cavity automatically outlined by the defect. (Fig. 2) In general, the gingival and occlusal or incisal walls are cut straight and parallel with the occlusal plane; the mesial and distal walls are also cut straight, parallel with the corresponding line angles of the tooth, and they meet the axial wall at a slightly obtuse angle. The four circumferential walls meet each other in sharp line angles. The walls are so placed that these line angles of the completed restoration extend somewhat beyond the eroded or decayed area, and lie under the gingival tissue. The only portion of the outline which remains in view, then, is the straight incisal or occlusal cavo-surface line angle. Aesthetics are thus much improved. Retention is gained between the gingival and occlusal walls; the outward flare of the mesial and distal walls protects an otherwise potentially weak area from possible fracture from the wedging action of the gold.

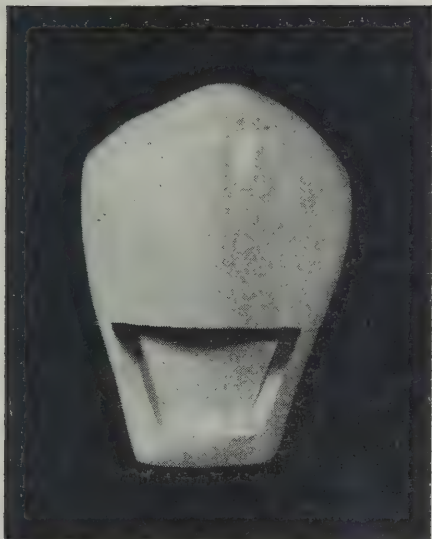


FIG. 2

Typical Class 5 cavity preparation, showing gingival and occlusal walls slightly undercut, and mesial and distal walls flared.

The outline form is obtained by the use of a small inverted cone bur, held so that the end of the bur establishes the mesial, distal and gingival walls, and the side of the bur is used to cut the occlusal wall. The walls and angles are straightened and trued with a small hoe, followed by a Wedelstadt chisel, and in so doing the cavo-surface margins automatically receive a very slight bevel; the axial wall is flattened and smoothed with the Wedelstadt chisel and the preparation is complete.

The filling of the cavity is accomplished by lining the walls with non-cohesive cylinders. They are placed one to a wall, on end in the cavity. First the mesial and distal walls are covered; these two cylinders are locked in place by the third placed against the gingival wall; the fourth is then wedged against the occlusal wall. All are condensed by hand pressure with parallelogram pluggers. The cohesive foil is then started along the axio-gingival line angle and is retained with a holding instrument until sufficient bulk is obtained to lock it into

the occlusal wall. The foil is built up saucer fashion against the four walls; the plugger is stepped in rows progressing from the centre of the cavity toward the margins, gradually pinching off the excess non-cohesive gold at the margins. Contour is then completed.

Finishing is accomplished chiefly with files and knife, then with fine small discs lightly lubricated with vaseline, and finally the surface is brought to a high polish on lowers and posteriors, and to a satin finish on upper anteriors with a polishing powder. A word of caution,—if the gingival margin extends gingivally of the cemento-enamel junction, care must be exercised in finishing not to ditch the cementum. Also, keep the restoration cool during the discing and polishing to avoid what has been termed 'barbecuing the pulp.' After the dam is removed, transilluminate the gingival tissues to be sure that no trimmings or polishing powder still remain under the gum line.

These gingival foils when placed are a real thrill to patient, nurse and operator. There is a sense of something really worthwhile having been done. The greater portion of such a foil is soon covered by the gum tissue, gingivitis is not encountered, and recurrence of decay is at a minimum unless future gum recession should extend beyond the gingival margin of the restoration.

CLASS 3 CAVITIES

The class 3 cavity or that occurring in the proximal surface of the anterior teeth is the next to be considered. Here again is a strong indication for foil, especially in cases of incipient decay. What other material can be placed in one appointment that will restore proximal contour, re-establish contact and protect the tooth as well and as long as gold foil? In larger cavities, especially those on the mesial surfaces of the teeth, the demands of aesthetics will many times contraindicate the use of foil.

One of the finest areas of this type for foil is the distal surface of the cuspid, either upper or lower. By utilizing the modified preparation as advocated by Ferrier, an operation which was formerly an ordeal with foil, and consequently usually resulted in the placement of an inlay and many times even a silicate cement, has now become as relatively simple to complete as a class 5.

Without going into detail, (Fig. 3) the typical class 3 cavity is cut with a straight gingival wall which meets the lingual wall in a sharp definite angle and shoulder, which greatly facilitates the placement of the foil. The labial outline is cut parallel to the lobe of the tooth and thus is in harmony. Retention is between the gingival wall and the rounded incisal point angle; the labio-axial and linguo-axial line angles are obtuse. The axial wall is flat.

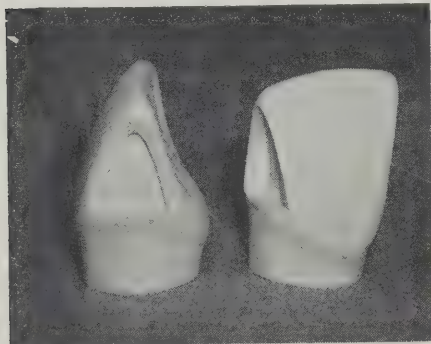


FIG. 3

Typical Class 3 foil cavity in upper central incisor, showing straight gingival wall meeting lingual wall in a definite angle and shoulder; the labial outline in harmony with the tooth contour; and the retention solely between the gingival wall and the incisal angle.

There are three indications for variations in the typical outline. The first is in the distal surface of upper lateral incisors which have a definitely rounded disto-incisal angle. Here the labial outline is cut straight from the incisal cavo-surface to the labio-gingival mar-

gin, and is parallel with the distal lobe of the tooth throughout. The reason for this variation is an improvement in aesthetics, as well as providing a direct incisal approach for the placing and condensing of the foil.

The second variation occurs in the distal surface of the upper cuspid, and the reason this time also, is greater access to the cavity for filling (Fig. 4). The change, which becomes the normal in this preparation, is that the labial and lingual outlines are straight from the incisal cavo-surface margin to the labio-gingival and the linguo-gingival margins. This permits more ease in placing and condensing foil into the broad labio-lingual dimension which occurs in these cavities, because a direct approach is afforded.

The third variation is the prepara-

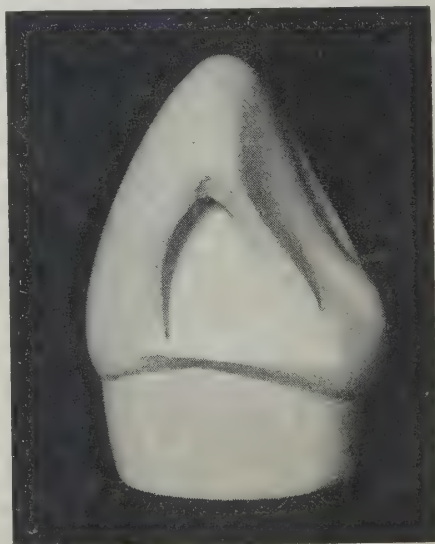


FIG. 4

Cavity form for the distal of the upper cuspid. The labial and lingual outlines are straight for greater access, and the labial and lingual walls are well boxed.

tion used for class 3 cavities in the lower six anterior teeth (Fig. 5). The labial outline is fundamentally the same as for the typical preparation, except that it can be held in so that

gold need not be visible. The chief modification is that the lingual wall is left standing to give greater strength to the incisal angle of the tooth. The lingual margin is extended only sufficiently to secure one that can be properly finished. All gold is placed from the labial. As long as care is



FIG. 5

Cavity preparation for the distal surface of the lower cuspid. The lingual wall is left standing in these lower anterior teeth to support the incisal angle.

taken to properly condense the gold along this lingual wall, there will not be recurrence of decay by reason of the limited extension.

The filling of the class 3 cavity is accomplished by the use of cohesive foil entirely. It is started by placing and condensing a small pellet in the linguo-gingival angle. Successive pellets are added to secure some bulk (Fig. 6). This portion is securely held, while the foil is carried along the axio-gingival angle to the labio-gingival angle. It is tied in to the labio-gingival point angle with a few small pellets, condensed with plugger force directly into this angle (Fig. 7). It

should then be safe to discard the holding instrument.

The next step is to complete the coverage of the linguo-gingival shoulder, using a plugger from the incisal



FIG. 6

Placing and condensing foil in the Class 3 cavity. First pellets are placed in the linguo-gingival angle.

directly along the lingual margin. This is the area where many foils are defective and care should be taken to adequately condense the foil at this point. If it is not done now, it is not easy to do at any later stage.

From this point on, most of the gold is added from the labial. The gingival wall is covered and the gold is built up toward the incisal angle along the whole labio-lingual width of the axial wall, keeping the lingual portion somewhat in advance of the labial portion (Fig. 8). When the incisal third of the lingual wall is reached, small pellets are condensed into the incisal angle. These are then joined to the main body of foil by the addition of more foil (Fig. 9).

A properly designed separator is then placed and blocked with compound, and the teeth slightly separated.



FIG. 7

Foil locked into labio-lingual angle; gingival wall and lingual shoulder covered.

The step which Ferrier calls 'making the turn' is then executed. There is a change in direction of plugger force. The holding instrument is now used



FIG. 8

Gold built up along whole labio-lingual width of the cavity, keeping the lingual somewhat ahead of the labial portion.

to support the filling gingivally, while gold is added against the incisal third of the lingual wall, and this portion and the incisal cavo-surface are covered to excess with force applied incisally

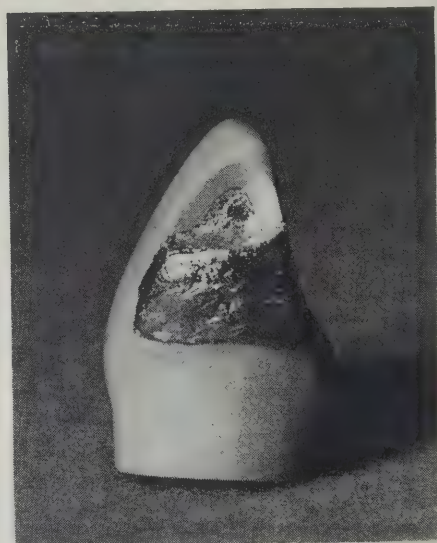


FIG. 9

Small pellets condensed into incisal angle and joined to the main body of foil.

(Fig. 10). The balance of the bulk and contour is then added, using a plugger force directed axio-lingivally (Fig. 11).

A variation from the above outline of procedure is that in the lower four incisors, a separator is placed before the cavity is prepared. It stabilizes these small teeth, and distributes over several teeth the force of the preparation of the cavity as well as that exerted in the condensation of the gold. Resultant soreness of the periodontal membrane is thus avoided.

Class 3 foils are finished by contouring to form and reducing excess chiefly with knives and files, and long linen strips of various grits (Fig. 12). Cool air is played on the tooth during the use of the strips. A satin finish, obtained by the use of a worn out extra fine cuttle strip, is most desirable for foil in this location. The restoration,

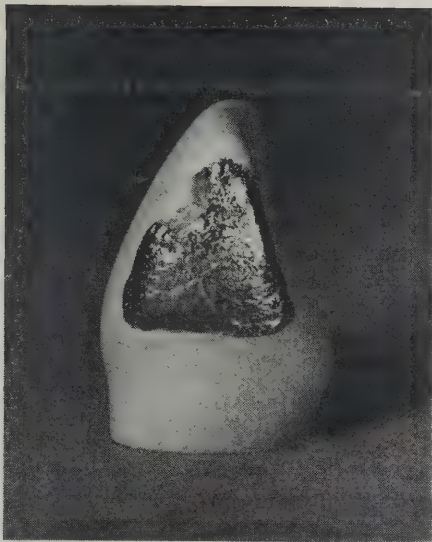


FIG. 10
"Making the turn". Foil condensed along the incisal third of lingual wall, and the incisal wall, with plugger force directed incisally.



FIG. 11
Foil completely placed, to slight excess.

with its outline in harmony with the shape of the tooth, is made even less conspicuous by this means. After removal of the dam the occlusion should

be observed for any interference from an over-contouring of the lingual marginal ridge.

CLASS 2 CAVITIES

Incipient areas of decay in the proximal surfaces of bicusps and the

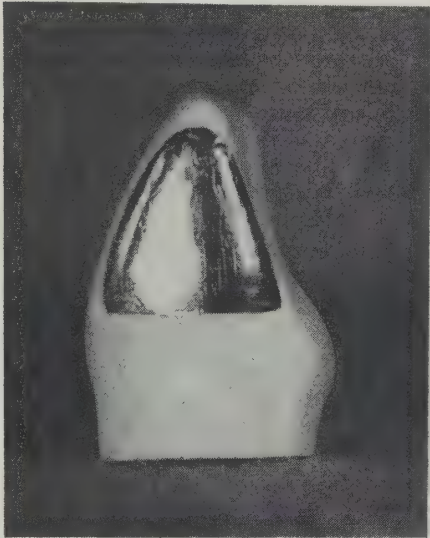


FIG. 12
Finished operation. Foil brought to satin finish rather than high gloss.

mesial surfaces of molars are strong indications for restoration with gold foil. The advantages of foil are many here. The peer of filling materials can be placed in these locations in one appointment in a time equivalent to or less than that required for a good inlay. The chief advantage is that, keeping in mind the shape of these teeth, and the requirements of cavity preparation from the standpoint of extension, resistance, retention and convenience, a cavity prepared for the reception of gold foil is the most saving of tooth structure, and offers greater pulp protection and less impairment of strength of the tooth than is possible for any other material. In this, as in other types of cavities, the greater the extent of the decay, the less the indication for gold foil.

In the class 2 foil cavity there are the typical preparation and filling procedure, and two variations. For the typical preparation the cutting is conservative. (Fig 13). The proximal outline is formed, by establishing the bucco-gingival and linguo-gingival angles for prevention of recurrence of decay and then holding in the extension of the buccal and lingual walls to give just sufficient clearance to bring them to a self-cleansing area. This will automatically make the bucco-lingual width of the box portion of the cavity much narrower at the occlusal than at the gingival. The bucco-axial and linguo-axial line angles are obtuse. Undercutting of these walls is not necessary for retention. The gingival wall may

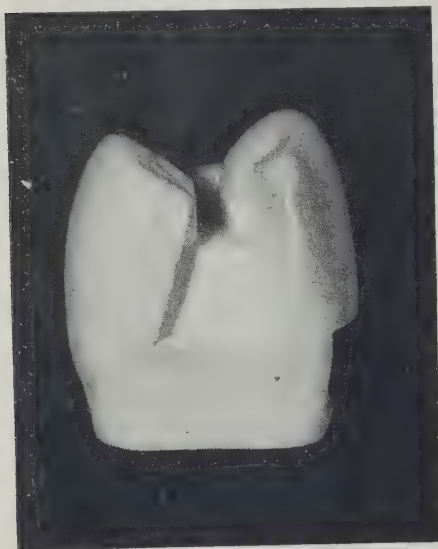


FIG. 13

Typical Class 2 foil cavity preparation in upper bicuspid. Proximal walls converge occlusally, saving tooth structure; buccal and lingual walls are not undercut; occlusal step narrow, yet adequate for strength of filling.

be slightly undercut, but that is not necessary either. The axial wall is flat. Line angles and point angles are definite and sharp.

Retention for this cavity is obtained in the occlusal step. Yet it is also cut

very conservatively. The pulpal wall is flat. The depth of the step will be determined by the thickness of the enamel, the occlusal stress, and the depth of the sulci. Its width is held in so as to give just a nice proportioning to the cavity. On the average, in a bicuspid it will be not more than one millimeter, which is established by a hoe having a blade of that width. The bucco-pulpal and linguo-pulpal angles are right angles except in their middle third where they are obtuse. The terminal end of the occlusal step is slightly dovetailed, and here, too, walls are flat and angles definite. The bucco-occlusal wall blends into the buccal wall of the proximal portion in a reverse curve which opens the throat of the cavity and so permits greater access in filling and an increased bulk of gold for strength. Final planing of the occlusal cavo-surface margins is made with instruments used parallel to the occlusal surface of the tooth. This avoids a cleavage of the enamel rods and a resultant over-cutting of the cavity.

The filling of this class 2 cavity is simplified by using non-cohesive gold for the bulk of the proximal portion, and cohesive gold for the remainder of the cavity. Three non-cohesive cylinders are used. Their size is estimated so that when the three are placed and condensed the cavity will be filled almost to the level of the occlusal step. They are carried to position with the end of the cylinder against the axial wall. One is forced against the buccal wall, one against the lingual, and the third wedged between the first two. They are thoroughly condensed with a large faced plugger, and the hand mallet. The cohesive foil is then started at the terminal end of the occlusal step. It is gradually built up and extended along the pulpal wall, out on to the non-cohesive gold. Contour is completed. The condensation of the gold will automatically wedge the teeth apart sufficiently to give bulk for proper contact in the finished

restoration without placing a mechanical separator. Final condensation of the proximal gold is done with soft-foil condensers and a smooth swedging plugger to burnish the area of the contact point.

The foil is finished down by cutting the excess non-cohesive gold from the gingival margin with a knife, and passing a strip through the embrasure to establish the gingival contour. The occlusal contour is worked out with small mounted stones, burs and a cleoid. The contact area and proximal portion are then finished by placing a separator, and reducing the excess gold with a knife, files and strips. A high polish is given the restoration, using pumice followed by a final finish powder. After the dam is removed, occlusion is checked.

The variations for the class 2 cavity occur in the lower first bicuspid, due to the anatomy of this tooth, and to its position in the arch. If it is a distal cavity, or a mesial cavity which requires an occlusal step, that step is extended to a point just short of the transverse ridge, which retains the structural integrity of the tooth (Fig. 14). The pulpal wall is sloped lingually, so as to make the step even in depth bucco-lingually, and so protect the buccal horn of the pulp.

The second variation is one reserved solely for the mesial surface of the lower first bicuspid. Inasmuch as this surface is not subject to occlusal stress, but is definitely subject to aesthetic demands, a cavity of minimal extension is most suitable. The separator is applied and blocked before starting the preparation. The cavity is a simple proximal cavity, with no occlusal step (Fig. 15). Retention is obtained by undercutting the buccal and lingual dentinal walls, but not the enamel at the occlusal opening of the cavity. The buccal and lingual walls converge markedly occlusally so that an absolute minimum of gold is visible in the finished restoration

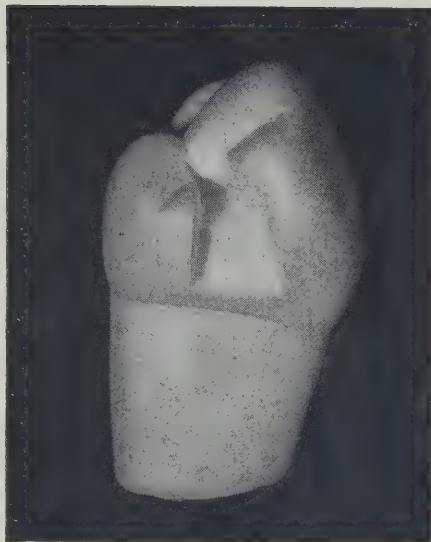


FIG. 14

Cavity preparation for distal surface of lower first bicuspid. Occlusal step does not cross transverse ridge. Pulpal wall sloping lingually protects buccal horn of pulp.

(Fig. 16). In filling this cavity, it is best as a rule to use only cohesive gold.

CLASS 1 CAVITIES

The final class of cavities to be discussed are those occurring in pits and fissures of the teeth. This would include the occlusal surfaces of bicuspids and molars, and lingual surfaces of incisors. These cavities are best treated when filled with gold foil. The procedure is simple; there is a minimum of tooth cutting; young patients will be particularly proud of their dentistry, and deservedly so. These small restorations constitute one of the finest means of educating patients to the effectiveness of fine dental procedures. It would be difficult to foist off any inferior type of restoration upon a patient who has had the pleasant service of one or more of these small gold foils since childhood.

The technique for the management of this class of cavity is the most easily mastered, but care must be exercised. The cavities are kept very small



FIG. 15

Cavity preparation for the mesial surface of lower first bicuspid. No occlusal step; buccal and lingual walls converge markedly occlusally and are undercut to provide retention.

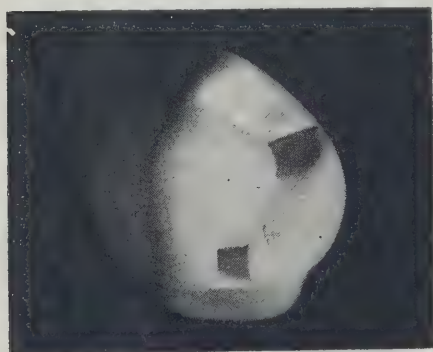


FIG. 16

Occlusal view of cavity shown in Fig. 15. A minimum of gold is visible in the finished restoration, yet access is sufficient for filling.

(Fig. 17). Most of the preparation is made with very small fissure burs; then the walls are planed and slightly bevelled with instruments cutting parallel with the surface of the tooth, rather than at right angles to it. The cavities are filled with cohesive gold unless they are large. In the latter case the walls are lined with non-cohesive

cylinders pressed thin, and the remainder of the cavity filled with cohesive pellets. The use of the Hollenback right angle pneumatic condenser, especially for lowers, makes the filling of these cavities very easy.

Finishing is accomplished by dressing down the gold with fine stones, burs, and a cleoid, and then polishing with pumice and a polishing powder.



FIG. 17

Class 1 cavity preparation in upper molar. Cutting is as conservative as possible.

These small delicate restorations make the operating day really worthwhile.

CONCLUSION

It is hoped that in reviewing the present day refinements and simplification of gold foil technique, there may be a more acute realization of the obligation of the operative dentist, and of the pleasure that awaits him when he directs his efforts to the increased use of gold foil, which, to date, still most nearly fulfills the requirements for the ideal filling material.

The time and money spent in acquiring dexterity in the use of gold foil will pay greater dividends than a similar expenditure in any other

phase of dentistry. The returns are apparent not only in the improvement in the type of practice and in the monetary reward, but what is more important—in the satisfaction and enjoyment of performing the finest operation possible in the practice of our profession.

BIBLIOGRAPHY OR REFERENCES

- Cline, H. M., Observations in Operative Dentistry, J.C.D.A. 6:3, Jan. '40.
- Ellsperman, G. A., Refinement of the Gold Foil Restoration, J.A.D.A. 27:342, Mar. '40; Review of Operative Procedures, J.C.D.A. 10:253, June '44.
- Ferrier, W. I., Clinical Observations in Areas of Erosion, and Their Restoration, J.A.D.A. 20:1150, July '33; Treatment of Proximal Cavities in Anterior Teeth with Gold Foil, J.A.D.A. 21:571, April '34; Treatment of Cavities with Gold Foil, J.A.D.A. 23:355, Mar. '36; Use of Gold Foil in General Practice, J.A.D.A. 28:691, May '41.
- Hampson, R. E., Gold Foil Restorations for Incipient Decay, J.A.D.A. 29:1141, July '42.
- Jones, E. M., Treatment of Caries in Anterior Teeth with Gold Foil, J.A.D.A. 26:532, April '39.
- Prime, J. M., Foil vs. Inlay, J.A.D.A. 18:1009, June '31; Gold Foil, J.A.D.A. 18:1477, Aug. '31; The Rationale of Gold Foil, Cosmos 76:745, July '34; Is Operative Dentistry Failing? J.A.D.A. 23:47, Jan. '36.

1523 Medical-Dental Building.

ANNOUNCEMENTS

Annual Convention of Dental Nurses Alumni

Royal York Hotel, May 19, 20, and 21.

Western Canada Dental Society

The joint convention of this Society with the British Columbia Dental Association will be held at the Banff Springs Hotel, Alberta, on June 13-14-15.

The program committee announce the following headliners for the convention:

1. Dr. William Roy Eberle of Chicago. "A comprehensive Review of Mucostatic Technique and the Fundamentals of Articulation."
2. Reed O. Dingman, A.B., D.D.S., M.S., M.D., of Ann Arbor, Michigan. "Oral Surgery."
3. John Kuratli, D.M.D., Portland, Oregon. "Fundamentals in Crown and Bridge Construction."

Registration for the convention will commence Thursday, June 12, at 8:00 p.m., to be followed by a reception.

The executive of the W.C.D.S. announce that the registration fee will be \$12.00.

For those registered at the Banff Springs Hotel, all luncheons and dinners of the convention will automatically be included in the hotel account.

The golf tournament will be, of course, one of the extraordinary features of the convention. To play over the Banff Springs course is the ambition of every golfer, and this opportunity will be provided by the tournament, to commence Thursday afternoon, June 12.

The committee in charge has arranged a delightful program for the ladies.

Canadian Dental Association

Dates for the Annual Meeting at Digby, N.S. are as follows—

Board of Governors, Friday, June 20, beginning at 1 p.m. and ending on Tuesday, June 24.

National Convention of Canadian Dentists, beginning Tuesday, June 24 at 2 p.m. and continuing June 25, 26 and 27.

THE PRESIDENT'S ADDRESS TO THE EXECUTIVE COUNCIL OF THE FEDERATION DENTAIRE INTERNATIONALE

by A. E. ROWLETT, L.D.S., Leicester, England.

IT IS difficult for me to find words to express my profound appreciation of the honour you have paid me by electing me to the Presidency of the Fédération Dentaire Internationale.

I would wish to say in the first place that, while the present occasion is one, to me, of supreme personal interest, its principal significance lies not in the extraordinary compliment paid to myself, but in the long list of eminent men who preceded me in this Chair and gave a life-time's devoted service to the cause of international scientific solidarity.

I can only promise that it will be my earnest endeavour to prove myself worthy of the confidence you have placed in me, and that I shall strive to maintain the greatness and traditions of this high office.

This meeting is the first regular session of the F.D.I. since 1939, and it would seem fitting to review briefly the history of the F.D.I. since that date. At that eventful gathering of August 1939 at Zurich, arrangements were completed for the issue of an International Dental Journal and, after much discussion it was decided to hold a Quinquennial International Dental Congress in London, in 1941.

Both these plans were nullified by the outbreak of war in September. Czechoslovakia, Belgium, France, Holland, Denmark, Poland, Norway, Finland, Greece and Russia were soon occupied by the enemy, thus isolating our Secretary General, until the time of liberation.

INTERNATIONAL DENTAL ACTIVITIES DURING THE WAR

During the war it fell to my lot to visit the United States and Canada three times, with the purpose of main-

taining international dental relations, and discussing problems concerning a comprehensive health service for the community in general, and a dental health service in particular.

The extraordinary spirit of fellowship animating the F.D.I. was strikingly illustrated by my reception, during these visits, by all members of the Federation. American and Canadian hospitality are proverbial, and it is in no spirit of invidious distinction, but rather as a tribute to the F.D.I., that I mention the names of Dr. Harvey Burkhart of Rochester, Dr. Don Clawson of Nashville, Dr. Arthur Ellis of Toronto, Dr. Andrew Jackson of Philadelphia and Dr. Logan of Chicago and old F.D.I. colleagues who made their home my home, and welcomed me, not as a guest, but as a member of the family.

The death of Dr. Logan, our President, in 1943, and the recent demise of Dr. Burkhart, removed two men who knew Europe intimately, and are an irreparable loss. Fortunately however, Dr. Logan, Dr. Burkhart and Dr. Don Clawson never ceased to preach the gospel of international dentistry in the Councils of the A.D.A.; and Dr. Walter Scherer, President of the A.D.A. from October 1944 to October 1946, gave his powerful support during the whole of his long term of office, for which we cannot be too grateful. There is one other point to which I should like to refer in connection with the war-time activities of the F.D.I. and that is the unique position of the Commission of Oral Hygiene. This Commission is, as you are probably aware, affiliated with the Red Cross of Geneva, a particularly happy and appropriate combination; for, just as oral hygiene, which may be defined as the dental aspect of preventive

medicine, is the foundation upon which dentistry must be built, so do the ideals of the Red Cross of Geneva furnish the only safe foundation of constructive peace.

It thus came about that, although during the war the F.D.I. might be described as dormant, it is possible, and appropriate, to describe the Commission of Oral Hygiene as an organism very much alive. My position as President of that Commission won a cordial reception in all official circles, health and otherwise, and I would wish to take this opportunity of expressing my own indebtedness and that of the whole Federation, to our colleague Dr. René Jaccard, whose foresight and humanitarian ideals were originally responsible for this affiliation. Only two European countries escaped the ravages of war—Sweden and Switzerland. Both served as islands of charity and peace amid a sea of hatred and suffering which surrounded them, and Switzerland, true to her International Red Cross Spirit, established the *Secours Dentaire Internationale*, which, under the Presidency of Dr. Jaccard, has given relief to many sufferers in countries where dental aid was almost nonexistent. The F.D.I. has shown its appreciation of this work by as large a donation as was possible from its sadly diminished funds.

POST-WAR ACTIVITIES

Immediately the war was over members of the Bureau made contact by letter, and it was a great joy to find that so many of our colleagues and their families were alive and well. I am sure that every member of the F.D.I. took courage when the news became known that our Secretary General was not only alive and well, but full of enthusiasm to take up the work of the reconstruction of the F.D.I. Meetings were quickly organized. In July 1945 an unofficial meeting was convened at Brussels, and in November 1946 there was a meeting held in Paris in connection with the *Journées Dent-*

aires. A meeting of the Bureau and Executive Council was held last June in Brussels, and today, thanks to the hospitality of the *Ecole Odonto Technique*, it has been possible for us to meet in regular session.

After the 1914-18 World War three years elapsed between the signing of the Armistice and the unofficial meeting of members of the F.D.I. at the Hague. The first regular session took place in September, 1922, and it was not until August, 1926, nearly eight years after the Armistice, that the first post-war International Dental Congress was organized at Philadelphia. When we remember what has been accomplished in two years, under the circumstances incomparably more difficult in every way than in 1918, and when, in addition, it can be stated that arrangements are in hand for an International Dental Congress at Boston next year, I have no hesitation in describing the progress we have made as a superb international achievement. We offer our most grateful thanks to all those colleagues, both in Europe and America, whose enthusiasm and energy have made this progress possible, and in particular to our colleague, Dr. Nord, whose post-war activities have once more earned him the title of the "Flying Dutchman."

THE FUTURE PLANS OF THE F.D.I.

Much thought has been given by the Bureau to the future of the F.D.I. and details of those discussions will appear in the reports given you by the Secretary and Treasurer. There are, however, a few fundamental factors governing the future of our Federation, and which it is perhaps appropriate for me, as your President, to put before you.

The total war in which the World has been engaged is to be regarded as the cataclysm or social upheaval which will influence every post-war activity, and therefore that of the F.D.I. For almost 40 years the F.D.I. has presented a remarkable example of free enter-

prise and voluntary service by dentists of many nations, inspired by the highest professional ideals. This altruistic spirit, and the bond of good-fellowship engendered by it, enabled the Federation to hold firm throughout the 1914-18 War and events have proved that this bond is still unbroken. Nevertheless, the environmental factors have changed so radically that the machinery which was excellent in the period between 1900 and 1914, and workable, though creaking badly, from 1918 to 1939, today is entirely out-moded. Up till 1939 there have always been a sufficient number of internationally minded dentists who, acting within a capitalist regime, were willing and able to devote annually, time, energy and substantial amounts of money, sufficient to make the F.D.I. a going concern. Those conditions no longer exist and the young dentists of the future are not in a position to shoulder these financial burdens, for the intrusion of the State into all health matters, and the crushing taxation have no longer left in the hands of the private individual the means of financing international concerns. It is, therefore, our

task to prove ourselves a living organism by adapting ourselves to this new environment. The methods proposed will be put before you by the Secretary and the Treasurer, and this will form one of the most important subjects of discussion at our Council and between American and European members of the Federation between now and the next Congress. It should, however, be fully understood that, though methods may alter, the spirit of the F.D.I. remains unchanged.

In conclusion I would make this appeal to the younger members of the profession. It is no mean kingdom that you inherit. We older men have borne the burden of the day. We are entitled to say we have borne it not unworthily, some of us for 20 years, some 30, some 40 and a few even longer. It is for you and your generation to take up the task which gradually, and in the necessity of things, must fall from our hands. As that occasion arises it will fall to you to address yourselves to your task as men who love and reverence the ideals of the F.D.I. as we, in our day, loved and revered them.

ANNOUNCEMENTS

Ontario Dental Association 80th Annual Meeting

Royal York Hotel, Toronto, May 19-21, 1947.

Dominion Dental Council Examinations

The Dominion Dental Council Examinations will commence on May 22, and continue on 23, 26, 27 and 28. A later examination will be held in Toronto July 15-19 inclusive.

A. J. BRETT, *Sec-Treas.*
Regina, Saskatchewan.

Université de Montréal Graduate Courses in Orthodontics

The next graduate course in Orthodontics will begin on September 15, 1947. Lectures and clinics will be given in the English and French languages. Applications for this course should be sent in as soon as possible to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal (26), Qué. Canada.

ANNOUNCEMENTS

Montreal Dental Club, Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel on October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration, two progressive clinics, essays, table clinics, visual education and other interesting features.

Any practitioner interested in presenting a table clinic at this meeting should communicate with Dr. C. C. Bourne, 1414 Drummond St., Montreal.

M. L. DONIGAN, *Director*,
1414 Drummond St., Montreal.

Assistants' Convention Cancelled

Owing to lack of suitable accommodation the convention of the Canada Dental Nurses' and Assistants' Association which was to have been held at Banff in June has been cancelled. Every effort has been made to arrange for this meeting but difficulties have proven insurmountable.

Czechoslovak Stomatological Congress

The Czechoslovak Stomatological Society will hold a congress in Prague in celebration of the 50th anniversary of the Society's foundation, June 11 to 15, 1947. Simultaneously, i.e. on the 11th and 13th of June, the 10th Annual Congress of the A.R.P.A. Internationale will be held in Prague as well.

The sponsoring Society invites hereby all friendly organizations and their members to attend both scientific meetings in large numbers.

The official languages of the Czechoslovak Stomatologic Congress will be Czech and Slovak; lectures announced in advance may be spoken in English or French.

For information please apply to:
Spolek ceskych zubnich lékaru,
Praha-II., Sokolska 31, Lékarsky dum.

Dental Laboratories Association of Ontario

The fourth annual convention of the Dental Laboratories Association of Ontario will be held on May 17 to 19 at the Royal York Hotel, Toronto.

A full program has been arranged.

For further particulars contact the secretary.

HARRY H. POSEN,
449 Spadina Ave., Toronto, Ont.

A.D.A. Convention

The annual meeting of the American Dental Association will be held in Boston, August 4-8, 1947. Elaborate programs are being prepared by the officers of the eleven scientific sections. All scientific section meetings, clinics and exhibits will be held in Mechanics Hall.

International Dental Congress in 1947

The 10th Congress which was to have been held in London in 1941 is to be held in Boston in August, 1947, on the invitation of the American Dental Association.

The Forum

PENICILLIN IN THE TREATMENT OF DENTAL INFECTIONS

by LEROY M. S. MINER, Boston, Mass., M.D. D.M.D.

Condensed from Bul. Mass. D. Soc., Jan., 1947.

The rise of the lowly earth mould, penicillium notatum, to occupy a leading role in the treatment of infections, is one of the most dramatic stories in the whole history of medicine.

Many believe that a real danger lies in the use of penicillin in the form of troches, sprays and ointments and the like which are being so actively advertised. The dosage in this form of therapy is too small to kill the organisms but does give them a chance to build up resistance to the penicillin.

As time goes on we will learn more of the action of penicillin, its dosage and its properties. An increase in the potency through improvement in manufacture will also undoubtedly develop. Already it has been announced by a research group in New York that synthetic penicillin has been achieved, especially penicillin G. They declare that entirely new and different penicillins which may possess desirable therapeutic properties can be made. A revolution in medicine is in prospect they say.

In the last 12 months I have treated over 100 cases of various types of infection, of both acute and chronic forms, with penicillin. These cases include acute and chronic apical infections, acute and chronic periodontal infections, acute cellulitis, acute and chronic osteomyelitis, acute third molar flap infections and Vincent's infections.

In addition I have used penicillin

post-operatively in cases of root amputations, cysts, extractions, especially where there were heart conditions, also pre-operatively and at operation as protection against both systemic and local reactions where dental infection was active.

Penicillin injected locally in cases of acute infections produces a remarkable effect on pain.

We have long been taught that pain which is the predominating symptom in the acute infections of the jaws and adjacent parts is due to the pressure on nerve endings which is caused by the swelling.

From my experiences with penicillin in the treatment of these acute infections, and from what I have learned of Dr. Rose's results I am convinced that this is not true. Instead I believe that the pain is due to the toxic action of the infection on nerve endings, and possibly also to a change in the pH in the tissues. Penicillin injected directly into an acute field, whether it be a periapical or periodontal abscess or a cellulitis, results in relief from pain in some cases as soon as 30 minutes after injection, even though no drainage has been established.

Two cases will illustrate my point. Male 65 years of age with a history of a bad heart appeared with an acute abscess of inferior right molar. The pain was intense, swelling pronounced, heart action irregular and somewhat laboured. Abscess had not pointed. Ten thousand (10,000) units (which is a much smaller dose than

I would use today) were injected directly into the area of swelling. In 30 minutes, with no drainage obtained, the pain had stopped. Penicillin in doses of 25,000 units was injected for three days following. The pain did not return and the swelling was reduced each day. On the third day a small amount of pus appeared along the gingival margin. In 10 days conditions were back to normal, no swelling or soreness, and the heart was quiet. Extraction of tooth, however, was advised, but it was delayed. Three months later patient went to Florida and died there in his sleep, apparently with no relation to this infection episode.

In a case of acute cellulitis, injection of penicillin brought about results that amazed me. A young woman 24 years of age developed an acute cellulitis of face 24 hours after the extraction of an upper right first molar which was evidently a difficult one judging by the story given me by the patient. I saw the case the following day. The patient was suffering severe pain, face badly swollen, but no localization of pus. Twenty thousand (20,000) units were injected. Pain stopped within two hours, swelling was completely down in three days with no localization of pus and no further treatment. Recovery took place with no breaking down to pus.

Numerous cases similar to the ones I have described ran a relatively similar course, but the almost universal prompt relief from pain was the outstanding result which occurred regardless of whether or not drainage was provided and whether or not the swelling subsided promptly. In cases where teeth were tender this symptom subsided also quite rapidly.

In both the acute and chronic periodontal infections, injections of penicillin as a supplement to the regular care of such cases has proven to be of great service. In fact it is in this area that penicillin may prove

its greatest usefulness in the dental field. This type of infection can be approached easily and effectively with penicillin and with assurance of a high percentage of satisfactory results.

In osteomyelitis penicillin has been highly recommended. One case of this disease started in the left maxilla with the usual violent symptoms, high temperature, rapidly developing swelling, and intense pain. Penicillin was injected locally in doses of 25,000 units three days in succession and every other day for three more days. Pain stopped after first injection. Incision and drainage were done later. Three teeth in area were very loose but disease was limited to small area. Drainage persisted for three months with small sequestra coming away.

Impression in this case was that penicillin had marked effect on pain and also limited the extent of the disease.

In both acute and chronic maxillary sinusitis, injection of penicillin into the antrum seems to be a very satisfactory treatment of a difficult type of infection. In cases of extraction of upper molars or bicusps where the antrum is invaded, whether or not infection is present, injections of 25,000 units of penicillin directly into the antrum is a satisfactory procedure. Where infection is present it will help to clear up infection and it will protect the antrum against invasion. Antra with foul pus are relieved by penicillin injections also.

Reports of treatment of root canals with penicillin probably because of the difficulty in getting high enough concentration to be effective, are not encouraging.

The use of penicillin for root canal work cannot be recommended at the present time.

In acute infection of third molar gum flaps I found that one injection of 20,000 units relieved the patient and reduced activity of the infection

to the point where the third molar could be removed with safety within three days.

Injections of penicillin post-operatively in root amputation, difficult extractions where infection is present, and infected cysts have given highly satisfactory results. In three recent cases of root amputation where frank pus was present in the abscess cavity, injection of 25,000 units immediately after suturing was made. All the patients the following day had no pain, swelling was negligible and the wound edges were pink. Similar results were obtained in

cases of removal of exostosed roots, impacted third molars and infected cysts. So satisfactory has this procedure been that employing it routinely seems indicated.

While undoubtedly we are still in the pioneer stage of penicillin therapy, my experiences and those of other men whose reports I have read lead me to believe that penicillin therapy, particularly administered by local injections in the area of infection, offers a new and invaluable method of treatment of dental infections.

ACID DECALCIFICATION OF TOOTH SURFACES, ESPECIALLY AS RELATED TO USE OF LEMON JUICE IN WATER

By DOROTHEA RADUSCH, D.D.S., B.A., M.S., Minneapolis, Minn.

Condensed from Minn. Dist. D. Jour. Dec., 1946.

Nutritionists still believe and there is no clinical evidence to the contrary that citrus fruit or tomato should be eaten every day with meals to provide a good intake of vitamin C or ascorbic acid. Unless the mouth is well rinsed or brushed immediately after eating, it may be better not to end meals regularly with citrus fruit.

When patients complain of sensitive teeth or if the dentist observes loss of tooth contours, the following should be considered:

- (1) Is the patient regularly using one of these substances? Dilute hydrochloric acid; beef, wine and iron tonic; or other iron capsule or tonic (this does not include tablet forms of iron); elixir of thiamin or B-vitamins; lemon juice in water; more than 8 ounces of orange or grapefruit juice; soft drinks (acid beverages).
- (2) Is the patient subject to frequent vomiting? This occurs in "morning sickness" of pregnancy and in certain other systemic disturbances.
- (3) What cleansing aid is the patient using? Some are highly abrasive, even dry salt may be injurious.
- (4) What technique of brushing and what type of brush are used? Extra hard bristles or cross-wise brushing are particularly damaging.
- (5) What occupational relationships may be involved? Acid fumes deposited on the exposed portions of the teeth of workers in explosive factories, acid dippers, battery workers, or chemical laboratory workers may produce decalcification. (Schour and Sarnat.)

Reduction of continued loss of tooth structure and sensitivity can be accomplished by the proper adjustment. When harmful mechanical factors are operating, they should be modified. Patients should be warned of the potential harm in taking lemon juice in water regularly, other than at meals. If acid solutions must be taken into the mouth regularly at times other than meals, they should be followed immediately by careful rinsing with a neutralizing solution, such as bicarbonate of soda or lime water.

"Stand still and silently watch the world go by—and it will".

CARIES PROPHYLAXIS

by B. GOTTLIEB

From Baylor University, College of Dentistry, Dallas, Texas.

Condensed from Texas Dental Journal, Jan. 1947

Recently it has been shown that caries is an invasion of microorganisms along the organic substance of the tooth. These microorganisms were found to produce yellow pigmentation and to necrotize tooth tissue. An explanation of the inhibiting action of silver nitrate and sodium fluoride on dental caries can now be given. These two chemicals act on tooth tissue in different ways. Silver nitrate coagulates the organic matter which is not calcified and might be utilized as an invasion road and coagulation decreases its invalidity, resulting in an increased resistance to dental caries.

Sodium fluoride attracts calcium with a power twice the attraction of oxygen for iron but does not coagulate protein. When the organic matter is fluorinized it attracts calcium from its surroundings and from the saliva. The attracted calcium combines with the fluorine to form insoluble calcium fluoride, thereby, obstructing the invasion roads. This results in increased resistance to invasion and thus to dental caries.

If we decrease the surface tension of the teeth any solution will penetrate better and we will succeed in impregnating the organic structures better. For this purpose a 1% solution of naccanol is recommended. The naccanol powder may be obtained from the National Aniline Division, 40 Rector St., New York 6, N.Y.

If hopelessly decayed teeth are beyond saving, they should be extracted before impregnation. Do not fill cavities before impregnation, but rather impregnate them as well as all other tooth surfaces and then fill them, impregnating again the prepared cavities.

On the day of impregnation, carbohydrates (including chewing gum) should not be allowed in the mouth before impregnation in order that the

enamel lamellae may not be filled with sugar.

All solutions used for impregnation should be kept in dark bottles. Never dip the cotton pellet in the bottle.

After a thorough prophylaxis the teeth are washed with a spray. Four teeth are isolated with cotton rolls, if an assistant is available to take care that saliva does not interfere. Otherwise, a rubber dam is indispensable. The teeth are dried with air, washed with benzine and dried again. Then they are moistened with NAC-CANOL, passing dental floss between the contacts in order to insure that no air bubbles are formed and the fluid comes in contact with the tooth surface everywhere. The surplus is picked up at the gingival margins. The teeth remain moist. Now 5% silver nitrate solution is applied the same way, again passing dental floss between the teeth. The surplus is again picked up at the gingival margins. The silver nitrate is allowed to stay NOT MORE THAN ONE MINUTE. If it is left longer before precipitation, it may turn dark. Now a saturated solution of calcium chloride in distilled water is applied in the same manner, again using dental floss. It instantly causes a white precipitation of the silver nitrate. If as much as one spot is left unimpregnated, the result is a failure.

Between the ages of 6 and 12, new teeth and new belts of teeth are constantly erupting. Such teeth should be impregnated three times a year. It is of special importance to impregnate the occlusal surfaces of the first molars right after eruption, for the protection of the fissures of this tooth. Later one impregnation a year is sufficient.

In the case of the erupted parts of the anatomical root surface (cementum), four impregnations a year are

necessary because these surfaces are hard to penetrate. In impregnating teeth with silicate or amalgam fillings, the fillings should be protected with sticky wax, or vaseline.

Right after each impregnation, especially before silicate fillings, the cavity should be washed out with water several times in order to make sure that any excess of the chemical not having made a compound is removed. Otherwise, discolouration of the filling may occur. In impregnating cavities for silicate fillings, the silver nitrate should be precipitated in thirty seconds and the impregnation repeated several times in order to avoid discolouration of the silicate filling.

In cervical cavities of molars which go under the gingival margin and where it is very difficult to keep the cavity dry, the silver nitrate should be

precipitated with a 1% adrenalin hydrochloride. The exudation from the gingival margin stops. The colour of the cavity wall turns black.

Green stain is probably caused by micro-organisms. If the teeth are impregnated after removal, it does not come back, no micro-organisms being able to live at the entrance of the organic matter of the enamel.

Before starting orthodontic treatment, all teeth should be impregnated in order that their resistance be increased against the invasion of micro-organisms favoured by the protection of the orthodontic appliances.

Any tooth clasped in connection with a partial denture should be impregnated at least three times every year, in order to prevent its becoming carious under the clasp.

ORTHODONTIC TREATMENT

by DOYLE J. SMITH, D.D.S., Memphis, Tenn.

Conclusions of paper in Am. Jour. of Ortho. and Oral Surg. Jan. 1947

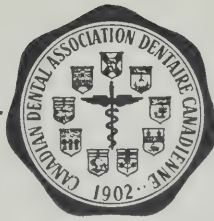
The successful practice of every phase of orthodontics, and more especially the prevention and interception of dentofacial deformities, depends in large measure on the proper understanding of growth and development in correlation to genetic tendencies, environmental influences, and the whole gamut of human behaviour. The rate and degree of general development and growth achieved by the child largely determine the manner and extent of dentofacial development. Conversely, dentofacial defects often constitute an important index of the abnormalities present in the child as a whole, including his endocrine, nutritional, and metabolic state.

There is no single growth pattern applicable to the entire human species. Therefore, in our attempt to diagnose and treat abnormality, we must first make certain that a given condition is not merely a phase of growth which might well fall within the range of

normality for the individual under consideration. At the same time there are too many abnormalities thought to be a phase of growth, observed too often at irregular intervals, thus developing into definite malocclusions. These cases are not referred to the orthodontist early enough to receive the greatest benefit of observation and treatment.

Many abnormal phases of occlusion are transitory and their manifestations may be considered normal only for a particular age and state of development and growth.

Orthodontics is one of the most highly satisfying of all professional services, and each year hundreds of young people in our communities are released knowing that they now have a far greater chance for success and happiness because their general practitioners of dentistry and their orthodontists recognized their difficulty in due time.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Waye, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgecombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

Editorials

COMPROMISING WITH IDEALS

As World War II progressed and it became apparent that the Department of Veterans' Affairs would have to plan an extensive program to care for the mouths of the veterans, a fee schedule for dental services was drawn up. This schedule was so inadequate that some of our leading dental organizations passed resolutions refusing to co-operate, in any way, unless this schedule was changed. Representations were then made to the government authorities by the Canadian Dental Association with the result that a revised schedule for dental services was adopted to be effective as of March 15, 1945.

Thanks to the efficient efforts of our C.D.A. Executive, this new schedule, though far from perfect, was a wonderful improvement over the old. However I would not wish to cast any reflection upon their efforts in this article. The general result has been that the very large majority of our profession, wishing to serve the veterans if at all possible, have given full co-operation and the veterans, on the whole have received excellent service. But this is not the end of the story.

There are many glaring defects in this schedule, some of which have been presented in these columns more than once. It is admitted that our Executive had to do some compromising with what they knew to be ideal, in order to get the present schedule adopted at all. For this reason, it must appear obvious that every effort should be made now to have these defects remedied at the earliest possible date. When this question is raised, we are met so frequently with the answer, "Why bother now, since work for the

veterans has been almost completed?". Such an answer indicates that little or no thought has been given to this important subject.

It is most apparent that this D.V.A. schedule is going to be taken as the model for all organizations taking any part in the mouth care of our people and that if this schedule is defective, then every other schedule will be defective. In the November issue of this Journal it was reported that those in charge of the R.C.A.F. Benevolent Fund dealing with the well-being of R.C.A.F. and Ex-R.C.A.F. personnel and their dependents had decided to settle dental accounts in accordance with the scale of fees as approved by the Department of Veterans' Affairs. In our December Journal it was reported that those controlling the Canadian Naval Service Benevolent Trust Fund, used for the purpose of promoting the well-being of naval personnel had also adopted the D.V.A. schedule of fees. In the last issue of this Journal our C.D.A. Secretary reported that in Saskatchewan great confusion has existed in dental offices owing to a number of existing fee schedules and that the Saskatchewan Dental Council had discussed the matter with Premier Douglas, who had agreed to recommend to the Health Planning Commission that the D.V.A. schedule be adopted to cover all dental treatment services requested by the government. Obviously, this is a step forward but a definite compromise with the ideal. As time goes on, other governments will become involved in these same problems, in fact, all governments will become involved. Are we going to stand idly by and see the present D.V.A. schedule of dental fees adopted throughout Canada or are we going to make every effort possible to have this schedule drawn up upon as nearly an ideal basis as possible and that as quickly as possible?

The other day I received a letter from a progressive dentist in Ontario, enclosing a copy of a letter which he had sent to Ottawa, pointing out the variation in the D.V.A. fees as compared with the fees allowed by the Workmen's Compensation Act which latter fees were, for the types of work referred to, thirty per cent higher than D.V.A. fees for the same type of work; and this does not mean that the Workmen's Compensation fees are by any means ideal.

This subject is not one which can be lightly brushed aside without injuring our profession for many years to come. It calls for intense thought and immediate action. Carlyle said "Our grand business is not to see what lies dimly at a distance but to do what lies clearly at hand"; and surely this problem lies squarely in our path, affecting the practice, the very life of every dentist in Canada.

"The golden opportunity
Is never offered twice, seize then the hour
When fortune smiles and duty points the way;
Nor shrink aside to 'scape the spectre fear,
Nor pause, though pleasure beckon from her bower;
But bravely bear thee onward to the goal.—ANON.

ARE WE LIVING IN A DREAM WORLD?

The interesting article entitled "A Radical Change" by A. E. Rowlett, appearing in the Empire News Section of this journal makes one pause and think.

The British official White Paper points out that during the war maintenance of industries, apart from munition factories was of necessity neglected, that millions of tons of shipping were lost by enemy action, hundreds of thousands of houses and buildings were destroyed by bombing, and that when peace came stocks of foods and of many materials had been reduced to very low levels. The Paper states that the central fact of 1947 is that Britain has not enough resources to do all that she wants to do, that there are barely enough to do all that must be done, that to get all that is wanted, production would have to be increased by at least twenty-five per cent, which is clearly impossible in 1947.

The Paper further points out that means must be found to pay for imports which were formerly obtained in return for overseas investments and that six years' arrears in industrial equipment must be made up, that Britons could live without new radio sets and furniture, even without new houses and holidays, but, that national existence becomes impossible if enough coal and electric power cannot be produced, so first importance must be attached to payment for imports and to basic industries and services, particularly coal and power.

According to the White Paper, the dollar position is very difficult and Britain is now drawing forty-two per cent of her imports from the Western Hemisphere which is the main source of food and raw material but that she is selling only fourteen per cent of her exports there; that these large deficits must be settled in dollars or their equivalent. It further states that the tendency is to sell more to the Eastern Hemisphere than is purchased but that now many of the Eastern Hemisphere countries have no gold or dollars or essential goods with which to pay, so that surpluses in Eastern Hemisphere countries cannot be wholly used against deficits with Western Hemisphere countries. It is said that this dollar problem can be wholly solved only by the economic recovery of Europe and the Far East and the establishment of equilibrium in all the major trading countries.

The Paper further states that the long-term target for exports still stands at one hundred and seventy-five per cent of 1938 volume and that the difficulty of maintaining exports on this scale is entirely insoluble unless British industry is able to compete in quality, price and design throughout the entire range of manufactured goods; and that without exports Britain cannot secure food or raw materials and, without these, she cannot hope to increase the standard of living or even maintain it. Therefore, the Government is appealing to women who are able to enter industry, and to those who can do so to stay on at their work instead of retiring.

One must conclude that austerity conditions more dismal than have prevailed for the past two years will exist for the next two years.

When one reads of these tragic conditions in Britain; conditions which have been greatly exaggerated by the climatic severity of the past winter and when one considers the desperate state of affairs in many other parts of the inhabited globe, and when one realizes that prosperity in Canada is dependent, in a large measure, upon export trade; exports that should be paid for, not given away, if our economy is to remain stable, one wonders whether or not we in Canada are living in a "Dream World".

In any case, it behoves us, as dentists, to study these world conditions and not proceed on the belief that the present favourable conditions are going to continue forever, but rather should we not put our houses in order as quickly as possible, clear up our debts and not assume new ones until this present world picture clarifies itself, thus avoiding commitments which might prove embarrassing if depression strikes us.

This does not mean, however, that we should economize in office furnishings and equipment or anything else having to do with the establishing of our practices upon a sound basis. In fact greater emphasis than ever before should be placed upon surroundings, patient education, the recall list, the use of auxiliary help as a means of retaining as much as possible of the present volume of practice.

M. H. G.

BOOK REVIEWS

Three Quarter Crowns—How to construct and apply them, by F. Engel, L.D.S., R.C.S., Eng., Univ. Med. Dr. Vienna. Translated and revised from the German Text. 142 pages, illustrated. Published by Dental Items of Interest Publishing Co. Inc., Brooklyn, N.Y. and Henry Kimpton, London. Price \$4.50.

This book was written originally over ten years ago and has now been translated into English to make it available to the many practitioners who do not have a knowledge of the German language. The author has revised and amplified the original book somewhat where he felt it could be improved. That a book of 142 pages could be written about the technique and application of just one form of dental restoration shows the importance attached to the "Three-Quarter Crown" by the profession.

Part I of the book describes a detailed and exacting method of the preparation of three-quarter crowns, followed by a chapter on the wax pattern. Casting is not described in detail but there is an excellent page on cementation. Part II discusses the use of these restora-

tions as abutments for bridges and fixation splints. In this section the author gives an excellent "analysis of the mechanical factors governing the possibility of bringing a bridge or splint of two or more three-quarter crowns into position on the teeth". It is perhaps from these theoretical considerations that the practising dentist who is using this restoration extensively will receive the most help. The author's method of illustration is clear and easily comprehended. An interesting device called "the disc parallelometer" is shown which anyone could make and which should prove very helpful and practical in the alignment of grooves. A "precision" method of soldering several inlays together provides against contraction of splints in soldering. Part III deals exhaustively with the field of application and the limits of the use of the three-quarter crown.

The Items of Interest Publishing Company is to be congratulated on making the work of this excellent writer available to the general practitioner who frequently is required to use this exacting but useful restoration in his practice.

KENNETH M. JOHNSON.

Dental Education Today, by Harlan Hoyt Horner, Secretary of the Council on Dental Education of the American Dental Association. Published by the University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois. Price \$6.00.

In this splendid book on dental education we have, for the first time, a systematic survey of the whole field of dental education. The past and present accomplishments of dental schools are discussed and the results given of surveys by the Council on Dental Education. It gives most valuable information to teachers and practising dentists with regard to the state of dental progress today.

Much information is given as to the status of dental technicians, dental hygienists and dental assistants, rounding out the picture of dental education.

The author of this book, in his position as Secretary of the Council on Dental Education since 1940, has had a wide experience in all matters pertaining to dental education and his conclusions are well worth the perusal of dentists generally.

This reviewer agrees with the author that the best possible dental health care of the citizens of this continent, at least, can best be accomplished, and dental educational interests be best preserved and strengthened by complete autonomy of the dental profession within university circles, at the same time developing in every possible way, the closest co-operation between physician and dentist, looking forward to a splendid co-ordination between the two professions.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

Supplementary List of Royal Canadian Dental Corps Officers

Retirements

Capt. L. R. Channel, 13, 12, 46, St. Catharines, Ont.
Major R. A. Connor, 8, 1, 47, St. Thomas, Ont.
Capt. R. H. Crossley, 9, 1, 47, Verdun, Que.

Major E. B. Hansen, 23, 12, 46, Lakewood, Ohio, U.S.A.
Lt.-Col. J. P. Whyte, 31, 12, 46, Swift Current, Sask.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Executive Meeting—February 24-25

The C.D.A. Executive met in Toronto at Association Headquarters on February 24-25, 1947.

Present:

Doctors V. D. Crowe, Truro, N.S.—*President*
Harvey W. Reid, Toronto, Ont.—*Immediate Past President*
J. K. Carver, Montreal, Que.—*Vice-President*
R. L. Pallen, Vancouver, B.C.
H. J. Merkeley, Winnipeg, Man.
Don W. Gullett, Toronto, Ont.—*Secretary*

The following actions were taken.

1. In response to a letter from the British Dental Association official representatives of the C.D.A. were appointed to attend the Joint Meeting of the American Dental Association and the Fédération Dentaire Internationale to be held at Boston August 4-8 next. Those appointed are Doctors Carver and Crowe, Dean Charron and the Secretary.

2. The invitation from The College of Dental Surgeons of the Province of Quebec and La Société de Stomatologie de Québec to hold the 1948 Annual Meeting in the Province of Quebec was accepted.
3. Details respecting the place of meeting for 1948 in Quebec were considered and the Manoir Richelieu Hotel at Murray Bay was chosen. The meeting is to be held during the month of June.
4. Dr. H. M. Eaton, Halifax, Chairman of the Program Committee presented an interim report for the 1947 Annual Meeting at Digby which after discussion was adopted.
5. Dr. George L. Cameron, Ottawa, presented several matters referring to federally employed dentists which were considered and then referred to the Dental Services Committee for further action.
6. Dr. R. P. Lowery, Chairman of the Pub-

- lications Committee discussed financial and other aspects relating to the Journal but requested no specific action at present.
7. The Committee on Industrial Dentistry reported progress on a survey of industrial dentistry in Canada.
 8. A motion of congratulations to Dr. R. G. Ellis upon his appointment as Dean of the Faculty of Dentistry, University of Toronto, was passed.
 9. Dr. J. K. Carver, as Chairman of the Committee on Dental Services, made an interim report respecting several matters relating to D.V.A. services which had been referred to the committee and also requested guidance upon the suggestion respecting unification of federal health services.
 10. The Committee on Dental Health & Public Relations was granted financial assistance in order to produce requested subject matter on dental health.
 11. Dr. R. G. Agnew requested the support of the Association in a project for the interchange of dental teachers and students between Canada and China. Recommendation was made that the Committee on International Relations give sympathetic consideration to this matter.
 12. Dr. J. A. Bothwell, Chairman of the Advisory Committee reported progress in drafting terms of reference for the various committees of the Association.
 13. Suggestion was made that a meeting of Public Health Dentists be organized at some future date for purposes of discussion and coordination. The principle was endorsed and hope expressed that outside financial aid could be found to support the proposal.
 14. A tentative budget for the year 1947 was prepared for presentation at the forthcoming Annual Meeting.
 15. A special committee under the Chairmanship of Dr. G. V. Fisk, Toronto, was appointed to draw up regulations for the administration of the War Memorial Scholarship Fund.
 16. Other minor matters of a routine nature were considered.

Statistical Data re Dental Personnel in Canada

The following tables have been prepared from data supplied by the Registrars of the Provincial Dental Boards, as of December 31, 1946.

TABLE I
Statistical Data re Dental Personnel in Canada
(as reported by Provincial Registrars, as of Dec. 31, 1946)

Province	Number of Dentists Reported During Year of 1946								Total Increase or Decrease	Ratio of Total Number of Dentists
	Male	Female	Military Serv.	Totals	Deaths	Retirements	Removals	Additions	1938	per capita population
Prince Edward Is.	27	0	1	28	0	1	0	0	— 2	1/3286
Nova Scotia	179	1	0	180	1	1	1	4	+ 11	1/3450
New Brunswick	110	0	4	114	5	0	3	9	+ 4	1/4105
Quebec	1026	5	10	1041	9	8	1	44	+167	1/3421
Ontario	2022	22	37	2081	23	7	45	49	+149	1/1924
Manitoba	242	1	1	244	1	2	1	20	— 7	1/3016
Saskatchewan	193	1	1	195	4	0	2	14	— 15	1/4333
Alberta	262	2	0	264	3	5	2	11	+ 28	1/3128
British Columbia	451	3	1	455	5	12	5	121	+ 93	1/2086
Totals	4512	35	55	4602	51	36	60	272		1/2633

Population figures used in this table are those issued by the Federal Bureau of Statistics for the year 1945.

Comparative figures for increase or decrease as compared to the pre-war year 1938 are given. It has been found impossible to give accurate comparative figures for years during the war, owing to the great number of adjustments between military and civilian dental service.

TABLE II
Movement of Canadian Dentists During 1946

From:	To:	P.E.I.	N.S.	N.B.	P.Q.	Ont.	Man.	Sask.	Alta.	B.C.	U.S.	Newf'd- lan	Aus- tralia
Prince Ed. Island													
Nova Scotia												1	
New Brunswick					1	1						(1 un- known)	
Quebec			1										
Ontario			2	1			16	8	4	12	.1		1
Manitoba										1			
Saskatchewan									1	1			
Alberta						1					1		
British Columbia						2					3		

TABLE III
Number Practising Specialties by Provinces
(Only those practising the specialty designated full-time are enumerated)

	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
Dental Oral Surgeons (Exodontists)		1		2	22	2		1	2	30
Orthodontists		1		13	22	3	2	1	3	45
Periodontists				2	10	1		1	3	17
Pedodontists					1				2	3
Totals		2		17	55	6	2	3	10	95

TABLE IV
Number Employed in Health Services by Provinces

	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
Dental Schools: (Teaching Staff)										
full-time		1		6	9			2		18
half-time				62	13			4		79
Hospital Service:										
full-time					16		1	6	2	25
half-time					3		1	0	0	4
School Dental Service:										
full-time		1	1	10	10	1	1	3	10	37
half-time		1	1		45	4	2	1		54
Public Health Service:										
full-time				10	4	1		1		16
half-time				56						56

TABLE V
Total Number Employed by Federal Departments as of Dec., 1946

Department of Veterans Affairs.....	75 (plus one ½ time)
Department of National Defence.....	55
Department of National Health and Welfare.....	1
TOTAL.....	131

In 25 years of children's dentistry I have followed one rule, "Be honest, be fair, and treat people as you would want them to treat you." One cannot please everyone, for personalities do sometimes clash, but the above rule will take care of 99 per cent of the people who come to your office.—Claude W. Bierman.

NEWS FROM THE PROVINCES

ALBERTA

Edmonton Dental Society

Dr. H. L. Freeland, Calgary, Alberta was the guest speaker at the March meeting of this Society.

His address was entitled "The Future of Dentistry". He stressed the importance of more thought being placed on Preventive Dentistry and Oral Hygiene and the necessity of a rearrangement of university courses to cope with this problem. He also suggested the necessity of more opportunities being made available for post-graduate study. A closer alliance with the medical profession and a better understanding of each other's problems was imperative to advancement, he said.

The Senior Class from the Faculty of Dentistry, University of Alberta, were guests of the Society for the evening. The President, Dr. Cecil Ward, presided.

Calgary Dental Society

At the March 10 meeting of this Society, the following officers were elected for the ensuing year:

Dr. C. M. Lowry, *President*

Dr. F. M. Murray, *Vice-President*

Dr. J. G. Walker, *Secretary-Treasurer*

Dr. Henry L. Freeland presented a paper entitled "The Future of Dentistry" which was received with considerable interest by the members present. Forty men attended the dinner.

Lethbridge Dental Society

The following officers of this Society have been elected:

President.—Dr. A. C. Ahrens

Vice-President.—Dr. A. R. S. Gray

Sec.-Treas..—Dr. D. A. Rylands

SASKATCHEWAN

Doctor and Mrs. W. W. Irwin Honoured

On March 13, The Moose Jaw Dental Society, entertained the Regina Dental Society and their wives at a most enjoyable banquet and social evening for Dr. W. W. Irwin and Mrs. Irwin as a farewell to them. They expect to leave for Mirror Lake early in April. Dr. P. W. Winthrope, Saskatoon, and Dr. and Mrs. Salisbury also of Saskatoon were present, as well as Dr. and Mrs. G. L. Kroshus of As-

siniboia, and about 20 Regina men and their wives.

The College of Dental Surgeons of Saskatchewan presented Dr. Irwin with an embossed Life Membership Certificate in the College. Moose Jaw Dental Society presented him with a beautiful travelling bag, and the Regina Society presented him with an oil painting of a Saskatchewan wheat field, which was painted by Mrs. L. J. D. Fasken of Regina.

Dr. A. E. Chegwin, President of Moose Jaw Society, was toastmaster, and presented the Moose Jaw gift. Dr. W. M. Blair, President of the Council of The College, presented the Life Membership Certificate, and Dr. Riffel, President of the Regina Society presented the picture. Drs. Winthrope, Kroshus, Salisbury and Fasken expressed their sincere regret and that of their fellows at the loss to Saskatchewan of Doctor and Mrs. Irwin and wished them every good fortune in their new home.

Regina Dental Society

At the February meeting Dr. A. E. Chegwin, President of the Moose Jaw Dental Society, was the guest speaker, taking as his subject "Among Ourselves".

During his inspiring address he challenged the large attendance:—

"To hold high the torch of Preventive Dentistry"

"To maintain and improve the standard of restorations"

"To increase the time usually allotted to amalgams and silicates"

"To study and explore the possibilities of periodontal treatments"

"To develop an attitude of paramount service".

Dr. Chegwin proved himself to be particularly qualified to deal with such a subject in a broad manner, and to stimulate the members to a renewed effort in daily practice.

MANITOBA

Winnipeg Dental Nurses and Assistants

The members of this Association were pleased with the splendid turn-out at their meeting on March 3, when their respective doctors attended as guests. Eighty-six were present for dinner.

Dr. A. T. Mathers gave a most interesting and enlightening talk on psychiatry.

Dr. P. D. Wood thanked the Association and said he hoped to receive another invitation from the D.N.A.A. in the near future.

A short business meeting concluded the evening.

DOROTHY MCCULLOCH

ONTARIO

Graduate Course in Orthodontics Completed at Toronto

On February 8, there was concluded, in the Faculty of Dentistry, University of Toronto, a two-weeks' post-graduate course in Advanced Orthodontics, the first of its kind ever to be given in Canada. Dr. R. H. W. Strang, of Bridgeport, Connecticut, and his associates Dr. W. H. Thompson, Pittsburg, Pennsylvania, and Dr. Glen Whitson, New York City, were the instructors.

Because of the desire to give each member of the class individual instruction, also the necessity of expediting the various assigned projects, the enrolment was limited to a small group of Orthodontic specialists, preference being shown, wherever possible, to ex-service personnel. So many desired to receive the instruction that approximately sixty applications had to be deferred until an opportunity is afforded for the organization of other classes. The most distant cities represented in the class list were Melbourne, Australia, and Oslo, Norway; an Orthodontist from Johannesburg, South Africa, enrolled for the course, but at the last moment was unable to secure transportation. The roll-call was answered by Orthodontists from the American States of Arizona, Maryland, Michigan, Mississippi, New Jersey, Ohio, Texas and Washington. The District of Columbia was represented by the former head of the Dental Corps of the United States Army. Canadian representatives came from Alberta, British Columbia, Manitoba, and Ontario. Four of the staff members of the Faculty of Dentistry were in attendance, as was also the President of the Toronto Academy of Dentistry. Dr. Strang kindly consented to permit the attendance, without fee, of two candidates proceeding to the diploma in Orthodontics in this Faculty.

The intensiveness of the instruction given is evidenced by the fact that as a preliminary requirement considerable theoretical work in the form of text-book reviews in the subjects of anatomy, dental anatomy, biology, histology, genetics and orthodontics, was required. A

written examination on these subjects was held during the opening session of the course. In addition each member of the class presented several technical pieces constructed in accordance with given specifications, also charts descriptive of the technical work required during the course. Thereafter the daily sessions were interspersed with written and oral examinations. Although the schedule was announced as continuing from 9:00 A.M. to 10:00 P.M. each day, many were in attendance from 7:30 A.M. to 10:30 P.M. throughout the entire two weeks. There was no absenteeism; all who enrolled for the course completed it satisfactorily.

At the conclusion of the session the instructors expressed their appreciation of the facilities provided by the University, stating that no better accommodation had been made available in any of the many Universities where similar instruction had been given. They intimated, further, a keen desire to return for the purpose of conducting similar classes.

Dental Alumni Association Reception and Musical arranged for Sunday, May 18.

Under the direction of president Dr. J. A. Bothwell and his Alumni Committee and in co-operation with the Ontario Dental Association a program of good fellowship and musical entertainment is being prepared for the Sunday evening prior to the opening of the convention.

The Reception will be held in the Concert Hall of the Royal York Hotel at 8.30 p.m. Simeon Joyce, of radio fame, will give a recital of familiar classical numbers; the Bell Singers, under the direction of Dr. Leslie Bell will present choral selections; Mr. Eric Treadwell will sing and the Solway Trio with Maurice Solway, violinist, Charles Mathe, cellist, and Simeon Joyce at the piano will render instrumental music.

This pre-convention function has been very popular in recent years, giving an opportunity to meet old friends and make new ones. You and your lady are cordially invited to come.

Remember, the Royal York Concert Hall, Sunday evening May 18, at 8.30. The Dental Alumni Association extends a hearty welcome to all its members, both actual and prospective.

Toronto Ladies' Auxiliary

Mrs. L. R. Davison, president of the Ladies' Auxiliary to the Academy of Dentistry, presided at the nomination meeting which took

the form of a St. Patrick's luncheon on March 20 at the Royal York Hotel.

"*Friendship*" was the subject of an address by Alderman Leonard M. Reilly, the guest speaker. Mrs. M. G. Boyes introduced Alderman Reilly and Mrs. E. T. Guest thanked him on behalf of the assembly. Musical selections were rendered by Mrs. R. W. Freestone, soloist and Mrs. G. T. Mitton, pianist. Mrs. C. Sullivan thanked the ladies and presented to each a gift as a token of appreciation on behalf of the Auxiliary.

MARGUERITE BOYES

Attention Class 2T2

Twenty-fifth Anniversary Re-Union

Dinner will be held on May 19 during the Ontario Dental Association Convention.

Your Committee are arranging a big time. Further particulars will be sent to each member by mail but plan to be with us.

KEN. HARRIS

STU. HOLMES

2T7 Reunion

Class party and dinner will be held in Parlour "B", King Edward Hotel on May 19 at 6.30 p.m. Class 3T7 and class 4T2 will join to share the entertainment for the evening. This has been arranged by the University Dental Alumni. Members of class 2T7 are invited to contact either

DR. HELEN MANCHESTER

1519 Gerrard St. East

DR. MURRAY BOND,

794 Mount Pleasant Road

Class 3T7

Reunion dinner will be held on Monday, May 19, in Parlour "A" of the King Edward Hotel at 6 p.m. Entertainment after the banquet. All arrangements made through the co-operation of the University Dental Alumni.

GORDON A. COWAN

Toronto Study Club of Dental Technicians

In January twenty-one members of the Club, some accompanied by their wives, were guests of the Dental Supply Company of New York in New York City. They were shown through the factory and received instruction by members of the Company staff.

On February 19, Dr. Herbert Mercer gave a clinic to club members in which he explained the use of the Gothic Arch tracing in secur-

ing centric bite registration. When a dentist takes the time to provide the technician with such accurate data it is necessary that he know how to make the best use of it. Members of the club enjoyed Dr. Mercer's presentation.

C. BLANDFORD

Dr. Claude Bierman at Toronto and Hamilton

At the respective March meetings of the Toronto Academy and the Hamilton Dental Association, this well known lecturer and teacher in Dentistry for Children was the guest speaker. A few thoughts he left with his audiences follow:—

In doing dentistry for children you are dealing with two people, the child and the parent.

Create an office atmosphere that is friendly.

Create a desire in the parents' mind to want better dental care for the child.

If you, the dentist, do not create this desire you are only partially fulfilling your duty to the child and the parent too.

Why separate your patients into two groups—adults and children?

You do not mean to advocate care for one group and neglect of the other, do you?

Referring to the child's primary teeth as "Temporary" has done more to retard care of children's teeth than any other influence.

The word "Prevent" is too often misused by the dentist or misunderstood by parents. Up to now dental decay cannot be prevented even by regular care at frequent intervals but it can be controlled and excessive loss of tooth structure avoided.

Do a thorough examination and prophylaxis for the child at regular intervals. Use 2% Mercurochrome as a staining solution. For home care have the parent use a No. 1 cotton roll in one inch lengths instead of a tooth brush.

Begin X-rays of the child's teeth at 3 years and use these to educate the parent regarding normal structures of the tooth as well as the abnormal which latter may not always be present at early ages.

Serve children in the morning when both you and the child are fresh and reserve

enough time to accomplish something at each visit.

Being a success is never an accident. Prepare yourself to do good dentistry for children. Build up a comprehensive understanding of each case and arrive at a diagnosis. Present your case to the parent convincingly and you will succeed.

Dentistry for children is not expensive but neglect of care is.

Academy of Dentistry, Toronto

Officers for 1947-48

Past President.....	Dr. H. Colton Bliss
President.....	Dr. F. Harold Shepherd
President Elect.....	Dr. J. H. Johnson
Secretary.....	Dr. E. A. White
Treasurer.....	Dr. Earl Bancroft

Council Representatives

East Toronto.....	Dr. A. J. Vince
North Toronto.....	Dr. M. G. Boyes
West Toronto.....	Dr. H. R. Bateman
Downtown Toronto.....	Dr. A. R. Scott
Central Toronto.....	Dr. G. L. Frawley

University of Toronto Dental Alumni

The annual dinner meeting of this comparatively new, or perhaps it is better described as a revived dental organization, was held in the King Edward Hotel on March 24. There were 114 dentists and honoured guests present and Dr. John A. Bothwell who is president, was toastmaster. Great praise is due to Dr. Bothwell and his executive for arranging a splendid meeting and more particularly for engendering an enthusiastic interest in University Alumni affairs. During the meeting it was hinted that Dr. Bothwell might be the next president of the University of Toronto Alumni Federation and some basis of fact supporting this was evidenced when he announced his resignation of the dental group because of his duties in the federation.

In the elections that followed Dr. E. A. Grant was elected the new president and he is supported by Dr. W. J. Langmaid of Oshawa, Dr. Martha Law and Dr. Harvey G. Bean, both of Toronto, as vice presidents in order named.

The speaker of the evening was Mr. Peter McDonald, Assistant Managing Director of the Crown Life Insurance Co. He was presented

to the meeting by Dr. Jesse Fullerton as a very modest man considering his attainments. The speaker took his audience on a trip through the far East back through the middle East to England and thence home to Canada. From Shanghai to Canton and Hong Kong, he described life of the Chinese people in this day and age. The effect of inflation on living was illustrated by the rates at a Chinese Hotel where he stayed and paid 30,000 Chinese dollars per day. From Hong Kong we were taken to Singapore, to Manila, to Bangkok in Siam and to New Delhi, Simla and Bombay in India. We were told of the Indian people, and saw coloured pictures of many beauty spots in that great country including the beautiful Taj Mahal. From India the speaker took us to Egypt thence to Britain whose people he said "Were down but definitely not out."

Finally Mr. McDonald arrived home and as he said "Very proud of Canada." "This Country of ours," he said, "has the greatest opportunities of any country in the world today. A Canadian is respected everywhere and Canada is the only country whose dollar is worth one dollar." The speaker's concluding challenge was for every Canadian to think nationally and to put it in his own words — "Think Canada, Talk Canada, and Live Canadian."

Niagara Peninsula Dental Association

The Niagara District Dental Association held its third meeting of the season at the Welland House, St. Catharines, on Friday, March 14.

The election of officers for the Society in 1947-48 was held and the following were elected:

President—	Dr. D. G. Johnstone, Niagara Falls
Vice-President—	Dr. F. E. Dawe, St. Catharines
Secretary—	Dr. W. B. Smeaton, Niagara Falls
Treasurer—	Dr. G. K. Chapman, Fort Erie
Directors—	Dr. M. C. Parks, St. Catharines Dr. K. M. Phillips

The guest clinician at the meeting was Dr. M. A. Cox, Professor of Preventive Dentistry, Faculty of Dentistry, University of Toronto. The subject of his address was "Diet and Preventive Dentistry." Dr. Cox gave a very interesting discussion which was greatly appreciated by members of the Society.

R. F. ROGERS, Secretary

QUEBEC**Montreal Dental Club**

At the February 24 meeting of the club Dr. R. B. Bell, president, was in the chair and Dr. Jules Thebaud, Honorary Professor of Periodontia at the University of Montreal, spoke on the subject "Periodontia for the General Practitioner".

Dr. Thebaud traced many various forms that periodontal lesions take in the mouth. He placed particular emphasis on the importance of a correct diagnosis before instituting treatment. "Too many men are prone to institute some form of treatment before fully understanding the basic causes of the disease", he said. He laid stress on the systemic factors involved in periodontal disease, stating that there are probably some hundred diseases of the human body which exhibit manifestations in the mouth. Local treatment of the disease in its early stages was also stressed, such as the elimination of food impactions and deposits;—"Many cases are irritations and not infections", he maintained.

Dr. Thebaud was introduced to the Club by Dr. J. W. Abraham and thanked by Dr. D. P. Mowry.

Montreal Endodontia Society

The President, Dr. Marcel Archambault presided at the Feb. 26 meeting of the Society. The feature of the evening's meeting was a paper on "Therapeutics in Endodontia" given by Dr. Wilfred Johnston, lecturer in Endodontia and Dental Pharmacology at McGill University, and a member of the Society.

Dr. Johnston reviewed very thoroughly the various drugs in common use for pre-medication, local anaesthesia and post-operative treatment, the antiseptics, the chemo-therapeutic drugs and antibiotics, pointing out the advantages, disadvantages, and limitations of the different drugs.

Dr. A. D. Richardson reported on the recent meeting in Chicago of the American Society of Endodontists, being loud in his praise of the work they are doing. Three members of the Montreal Society, Drs. Archambault, Pearson and Richardson appeared on this program.

Montreal Dental Nurses' Association

Dr. Hamilton A. Baxter, plastic surgeon addressed the February '10 meeting of the Association. He illustrated, with the use of slides,

various plastic operations and particularly cleft palate in children.

The Association had as guests at this meeting members of the French Dental Nurses' Association.

NOVA SCOTIA**Halifax Dental Society**

On January 9, C. J. W. Beckwith, M.D., D.P.H., F.C.C.P., Medical Superintendent of the Halifax Tuberculosis Hospital, and director of Tuberculosis of Halifax City addressed this Society.

His subject was "Tuberculosis in Relation to the General Public, to Dentistry, and the Public at Large". He pointed out that while the clinical aspect of tuberculosis to the dentist is very limited and unimportant, that since there are patients who remain in Sanatoria for months and sometimes years, it was necessary to have some means of rendering dental service to these patients. Up to the present, no arrangements have been made along this line.

Dr. Beckwith then went on to explain the modern methods of doing mass x-rays by the use of the small film. It was the aim of the department to wipe out tuberculosis in Halifax by early detection and treatment. The only way this is possible is by x-ray plates of all children in the schools. The miniature plate made this possible by reducing the cost and time involved. Following examination of the miniatures, those who were suspected were recalled and full size plates made for diagnostic purposes. He told also how some cases were traced by x-ray which is the most important factor in discovery and treatment.

The question was asked, "What precautions could be taken by operators exposed to active cases?" Answer: The only precaution that could be taken was the use of a face mask.

Since examination of school children began, over 4,000 had been x-rayed and cases found were put under treatment.

Drugs have been generally unsuccessful in treatment, penicillin and streptomycin being very expensive and of doubtful value.

An invitation was extended to the Society by Dr. Beckwith to avail themselves of an examination.

The talk was much appreciated and was considered one of the most interesting and instructive to which the Society has had the pleasure of listening.

On February 13, Dr. W. W. Woodbury, Dean of the Faculty of Dentistry, Dalhousie University, gave an address on "Orthodontic Principles and Treatment That Can Be Applied By The General Practitioner". The speaker briefly traced the history of this science from the principles laid down by Angle, the changing concepts since then with realization that growth and the constant changes taking place in the oral cavity involved so many factors other than mere mechanical movement of the teeth.

The blackboard was used to illustrate various phases of the address, in addition to which, models of before and after completion of treatment of practical cases were shown. A vote of thanks was tendered Dr. Woodbury in appreciation of his very good paper.

The members then went to the Tuberculosis Hospital for chest x-rays.

The various committees of the Canadian Dental Association are hard at work and the program is shaping up well.

Care of Orphans' Teeth in Halifax

For the last thirty-five years, children of the Halifax Protestant Orphanage and St. Joseph's Orphanage have received dental treatment at the Dalhousie Dental Infirmary, on an average of fifteen a day. In other words, about 160,000 children have obtained free dental care over this period, and the mouths of these children have been kept in excellent condition.

BRITISH COLUMBIA

Vancouver and District Dental Society

The monthly meeting of this Society was held in the Hotel Vancouver, on March 4. The President Dr. John Ingledew was in the chair.

This meeting attracted probably the largest turnout in the history of the Society. The operative dentistry section of the Committee on Program was responsible for the program. Preceding the clinical part of the program Mr. Price who has an excellent baritone voice sang

three very delightful numbers thus putting the members in a very receptive frame of mind.

Preceding the table clinics Dr. Harold Cline gave some introductory remarks on the planning of the clinics and general observations on operative dentistry, then proceeded to introduce the Clinicians of the evening, giving some explanation of each clinic, which was as follows:

Preparation of Anaesthetic Solution—

Dr. W. M. C. Kynoch, North Vancouver.

Injections of use in Operative Dentistry—

Dr. W. D. MacLeod, Vancouver, B.C.

Rubber Dam Technique, a chair clinic—

Dr. Wm. Miller, Vancouver, B.C.

Cavity Preparation for Amalgam & Silicate—

Dr. J. C. Foote, Victoria, B.C.

Insertion & Finish of Amalgam—

Dr. R. H. MacDougall, Victoria, B.C.

Gold Inlays-Investing by Vacuum Technique—

Dr. Walter Sproule, Vancouver, B.C.

The excellent attendance and favourable comments were very gratifying to the executive and committee responsible for the meeting.

Two new members were voted into the Society in the persons of:

Dr. L. W. Beamish and Dr. N. C. Ferguson.

Both are from New Westminster and graduates of the University of Oregon.

Vancouver Dental Assistants' Association

The regular February dinner meeting of this Association was held in the Pacific Athletic Club on February 10, with sixty members present.

Guest speaker for the evening, Dr. W. D. MacLeod, delivered an address on various items of interest to the dental nurse, which proved of great interest to all present.

A short business meeting followed when plans were discussed for our Carnival which is to be held in April.

GWEN HILLIARD

"Flatterers are clever mind readers. They tell us exactly what we think."

"It is wilful folly to fasten upon some single end or consequence which is liked, and permit the view of that to blot from perception all other undesired and undesirable consequences."

EMPIRE NEWS

GREAT BRITAIN

A Radical Change

by A. E. ROWLETT, Leicester, England

Some eighteen months ago, when Labour won the election by an overwhelming majority, I pointed out that this unexpected complete reverse was to be reviewed not so much as a revolution as an evolution; an unfolding of events in due succession. Our country is seeing the same kind of phenomenon as occurred in the 15th, 17th and 19th centuries—a radical change.

At the close of the 15th century the monarch achieved a domination which lasted 100 years; in the 17th century power passed into the hands of an upper class, the landed gentry; with the Reform Bill of 1832 the middle class took control; today it is the turn of what we compendiously call the masses, and government of the people by the people is in sight, if not here. It is not an isolated phenomenon but belongs to the spirit of the age. Fundamentally it is the result of education, and if this is so, must ultimately come in all educated countries. Marx would have traced it to economic causes which undoubtedly are contributory. But the real cause is education. As soon as you educate people, you teach them, however feebly, to use their reason, and as soon as people think, they begin to ask questions of which the first is "Why should there be such inequalities in life; in particular why should the children of some people have inadequate food, living conditions, education, etc., while the children of others, whatever their brains or character, have secure access to the conditions of the good life?"

Unfortunately for Great Britain, Churchill the statesman has been eclipsed by Churchill the Politician. In the flush of victory the semi-educated electorate, always ready for a change, accepted the Utopian promises of Attlee and his friends at their face value and gave what the Government improperly describe as a mandate to carry out their half-baked socialistic plan.

Many of the members in the House and some in the Cabinet are uncultured; they were unable to differentiate between what is proven and what is not proven. They belong to that most dangerous class, the wishful thinkers, men with first-rate intellects and second-rate

opinions. They were accordingly enthusiastic votaries of a text book socialism which is full of hard and unassailable facts until it fails in performance.

Attlee and several of his colleagues are not dishonest or self-seeking; one of the secrets of their success in the political field is that they are guided by sentiment instead of reason. In my letter of eighteen months ago I ventured to assert that they, and the country with them, would have to learn the hard way—education by experience.

The White Paper is an endeavour to face up to facts; the next question is how soon will they and the electorate face up to the implication of these facts? Ultimately, of course, there is no escape. "*Expellas naturam furem, usque recurrit.*"

It is up to us who have had the privileges of education and the good life to shoulder the implicit responsibilities. The power has passed over to the hands of the masses, an uneducated electorate, it is our obvious duty to seek every opportunity whereby we may educate our masters.

In Great Britain today, it is essential that every activity, professional, commercial or political, whether its scope be individual, civic, national or international, should take into account these three fundamental factors:—

- a) We are a poverty stricken country, i.e. poverty has descended upon us largely as a result of this Total War.
- b) We are terribly over-populated, i.e. the produce of the land cannot feed the dweller on it. England has 700 to the square mile, U.S.A. 40 to the square mile, U.S.S.R. 15, and Canada 7.
- c) The change over of the power into the hands of the masses is an evolutionary phenomenon, i.e. it is non-reversible. There are no signs of a return to a conservative or capital regime and our best bet is a gradual strengthening of the opposition in the Parliament; for an overwhelming majority of any one party, labour, liberal or conservative is neither more nor less than a Dictatorship which is the direct opposite of a true Democracy.

This long spell of Siberian weather has only precipitated an economic and social crisis in an exacerbated form which was inevitably due

this year. A massive dose of Shock Therapy! Let us hope, as has often happened before, that straitened circumstances will bring salutary reflections.

Another Chapter is Opened

A new chapter in the history of the British Dental Association was opened on Saturday, January 25. By 696 votes to 95, what must have been one of the largest meetings of the Association ever to be held, decided that Dentists 1921 should henceforward be eligible

to apply for membership. So closes the long controversy which, from time to time, since 1921, has agitated the Association and diverted its energies. Once again it is possible to look forward to the attainment of the aim of the founders of the Association, that it should include in its ranks every dentist who desires to promote the science and art of dentistry and to maintain the honour and interests of the dental profession.—*From Editorial in Br. D. Jour. Feb. 7, 1947.*

GENERAL NEWS

Dr. L. V. Janes Honoured

Dr. L. V. Janes, O.B.E., Chief of the Dental Health Division, Department of National Health and Welfare, has been elected a fellow of the International College of Dentists.

Dr. Janes, who is a graduate of the Chicago College of Dental Surgery, practised in Edmonton until 1939 when he became district dental officer for M.D. 13. Later he went overseas in command of No. 5 Canadian Dental Company. In 1942 he became director of dental services overseas and in 1944 was awarded the O.B.E. for his outstanding work. He retired from the army in 1945 with the rank of colonel.

Dental Aid For China

Postwar conditions in China have created situations of critical need affecting large numbers of people. Those engaged in the provision of dental services in that vast country are not only facing such problems as are, under any circumstance, inevitable in an area of huge population and extreme paucity of dental personnel, of widespread oral disease and mass poverty; but there is also a great shortage of all types of dental equipment and supplies. Eight years of war and curtailment of supplies have resulted in the breaking-down and wearing out of equipment and the consumption of available supplies.

It is believed that the dentists of Canada will want to offer practical help in this situation. The Board of Governors of the Canadian Dental Association last year expressed their sympathetic interest in a proposal from Dr. R. G. Agnew of the School of Dentistry of the West China Union University that the Canadian profession be asked to lend a helping

hand. The Canadian Aid to China Committee, official organization for the transmission of Canadian contributions to China, has offered to transport to that country such equipment and supplies as may be donated by Canadian dentists; and Dr. Agnew will see that the materials are distributed in such a way as to accomplish the most in the alleviation of the need. Almost every type of dental equipment or material is required; operating and laboratory equipment, chairs, units (not cabinets or tables, which can be made locally); usable x-ray apparatus and supplies; prosthetic equipment and materials; instruments for all fields of practice; burs; cements; electric engines; foot engines (cable or cord type), handpieces, forceps, etc.

Will all dentists interested please forward their contributions to, or communicate with the Canadian Aid to China Committee, 371 Bay Street, Toronto, Telephone Elgin 8588; or communicate with Dr. R. G. Agnew, 53 Turner Road, Toronto, Lloydbrook 0421. On the West Coast, contributors may communicate with the Canadian Aid to China Committee, c/o Maj. Gen. Victor Odium, 610 Rogers Bldg., Vancouver, B.C.

Seventh Postgraduate Program of the American Academy of Periodontology

This postgraduate program is being sponsored by the University of Minnesota School of Dentistry and the W. K. Kellogg Foundation Institute. The meeting is being held at the University of Minnesota, April 14 to 16.

The following subjects are being discussed:—

Rheumatic Heart—Bacterial Endocarditis by B. J. Clawson, M.D., Ph.D., Professor of Pathology, University of Minnesota. Dr. Clawson

will attempt to make application to dental practice.

Blood Dyscrasias by A. J. Hertzog, M.D., Ph.D., Pathologist, Minneapolis General Hospital. He will discuss the fundamental aspects of the anaemias, leukemias, and haemorrhagic diseases.

Isaac Schour, D.D.S., Ph.D., Sc.D. will discuss *Nutrition and Periodontal Disease*.

Dr. John J. Bittner of the University of Minnesota will speak on *Experimental Breast Cancer in Mice*.

Arthur Kirschbaum, M.D., Ph.D., Associate Professor of Anatomy, University of Minnesota, will discuss *Experimental Leukemia*.

Dr. F. Raymond Keating, Instructor in Medicine, Mayo Foundation, will give an address on *Normal and Pathological Physiology of the Parathyroid Glands* and will also discuss *Hyperparathyroidism*.

Edward L. Tuohy, M.D., F.A.C.P., Chief in Medicine, Duluth Clinic, Duluth, Minnesota, will speak on the *General Problem of Geriatrics and Gerontology*. He will also discuss *Aging and the Teeth—The Physiology of Aging Apart from Disease*.

Dr. Burtrum C. Schiele will discuss *Psychosomatic Medicine*.

Topical Application of Sodium Fluoride

The Journal of the American Dental Association has recommended that all dentists apply diluted solutions of sodium fluoride to the teeth of child patients during the course of regular dental treatments as a means of diminishing tooth decay.

While pointing out that fluoride therapy is still largely in the experimental state, an editorial in the Journal declared that results obtained among children by topical application of fluoride solutions were such that routine office use of the treatment by dentists is warranted as a "general preventive measure".

The editorial said that "significant results" could be expected from administration of the treatment by dentists to large numbers of children but added that results may differ sharply among individual patients. It said that the treatment should not be surrounded with "extravagant claims" to the individual patient or parent.

Present evidence indicates that the treatment is not effective on the teeth of adults.

A.D.A. News Release.

IN MEMORIAM

Joseph E. Overholt, of St. Catharines, Ontario, aged 91, died February 24. He retired from active practice about twenty years ago.

In earlier days he had been prominent as a member of the Victoria Curling Club and of the Hamilton Gun Club. At one time he was named a member of the Canadian Olympic Trap-shooting team. Only a few days before his death he received a life membership badge from the Hamilton Gun Club. He was an enthusiastic gardener which kept him busy during his later years.

Dr. Overholt is survived by his widow, two sons, nine grandchildren and two great-grandchildren.

George William Bald, of Sault St. Marie, Ontario, died at the age of 71. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons

of Ontario in 1903. After graduation he set up practice in Sault St. Marie where he continued until retirement in 1941. He was at one time president of the Sault Ste. Marie Dental Society.

He was a member of the city's Golf and Country Club and its Curling Club, also a member of Arthur Lodge of Oddfellows, Keystone Lodge AF & AM and the Scottish Rite. He was a member of the Rotary Club and Vice-President for two years, 1917-18.

Dr. Bald is survived by his widow, three sisters and one brother.

Egerton Ryerson Follick, a pioneer dentist of Vancouver, B.C., aged 73, died in hospital March 10, after a three-weeks illness.

He is survived by his widow, one son, a grandson, a grand-daughter and two sisters.

Réactions Pulaires aux Ciments-Silicates*!

par H. A. ZANDER, M.S., D.D.S., Boston. **

traduit par Louis Bernier, B.A., D.D.S., L.C.D.

Lorsque le dentiste doit restaurer des dents antérieures, le choix des matériaux est souvent limité pour des raisons d'esthétique ou pécuniaires. A cause de cela, il doit se servir de ciments-silicates. Plus de 11,000,000 d'obturations de ce genre sont faites chaque année. (1) Les propriétés physiques des silicates ont été étudiées avec soin par le "National Bureau of Standards" et plusieurs manufacturiers de produits dentaires. Malheureusement, toute cette compilation ou ces constatations ne concordent pas toujours aux réactions variées des tissus dentaires aux silicates. Ceci est particulièrement vrai de la pulpe, car il y a des manifestations cliniques évidentes que les silicates produisent des réactions néfastes. Certains chercheurs (2-4) ont soutenu que l'acidité des ciments-silicates est responsable de ces effets. Par contre, des milliers d'obturations sont faites chaque année et ne semblent occasionner aucun malaise.

Les expériences de Palazzi (5), Fasoli (6), Manley (7), Gurley et Van Huysen

(8), faites sur des chiens laissent croire que les ciments-silicates causent des troubles dentaires sérieux.

Manley (9) a prouvé que les mêmes phénomènes se produisent chez l'homme. Sa manière de procéder consistait à obturer des dents d'enfants, de silicates, pour les extraire quelques semaines plus tard et en faire l'étude histologique. Il constata une dégénérescence et une destruction des odontoblastes avec infiltration de cellules rondes dans la pulpe, attribuant ces changements à l'effet irritant des silicates. Cependant, tout comme Gurley et Van Huysen, il ne constata pas de réactions pulaires sur les dents obturées d'oxyde de Zinc-Eugénol. Barker (10) également, a étudié des segments décalcifiés de dents humaines obturées de silicates, pendant

* Communication publiée dans la *Journal of the American Dental Association*, octobre 1946.

† Ce travail fut financé en partie par un don du "Conseil de Thérapeutique Dentaire de l'American Dental Association".

** Assistant-Professeur de Dentisterie Opératoire au "Tufts College Dental School"

1) Garrett W. E. "Ciments-Silicates". J. A., D.A., 29: 960, juin 1, 1942.

2) Webb, W. R., Jr. — "Valeur Relative de l'Incrustation de Porcelaine". D. Items of Interest 44: 890, décembre 1922.

3) Doubleday, F. N. — "Obturations en Ciment-Silicate". British D.J. 47: 493, mai 1, 1926.

4) Harvey Warrem; Le Brocq, L.F. et Rakowski, L. "Acidité des Ciments Dentaires". British D.J. 77: 61, août 4, 1944.

5) PALAZZI, S.: "Einige Konklusionen aus meinen dreijährigen. Experimenten über Die Veränderungen der Zahnpulpanach Füllungen mit Silikat-zementen." ZTSCHR. F. Stomatol. 22, 238, Avril, 1924.

6) FASOLI, G.: "Silikat-zemente und Pulpaveränderungen." STSCHR. f. Stomatol, 22, 225, Avril, 1924.

7) MANLEY, E. B.: "Recherches Préliminaires sur les Réactions pulaires à certains matériaux dentaires." British D.J. 60: 321, avril 1, 1936

8) GURLEY, W. B. et VAN HUYSEN, GRANT: "Changements Histologiques des Dents Causés par des Obturations plastiques". — J.A.D.A. 24: 1806, novembre 1937.

9) MANLEY E. B.—"Recherches sur les Premières Réactions de certains Matériaux Dentaires sur la Pulpe." D. Record 62: 1, janvier, 1942.

10) BARKER, J. N. — "Réactions de la Pulpe aux différents Matériaux Dentaires". Austral. J.D. 46: 226, décembre, 1942.

des périodes variées.

Quoiqu'il ait trouvé quelque évidence d'infiltration pulpaire, il ne croit pas qu'elle soit suffisante pour causer la mort de celle-ci. Tous ces rapports laissent entendre que les silicates sont dommageables à la pulpe. Mais toutes ces opinions sont basées sur des expériences de laboratoire ou d'observations cliniques assez mal contrôlées. Il est aussi à remarquer que toutes ces expériences ont été faites sur des dents saines. Mais en pratique, c'est le contraire qui se produit, c'est-à-dire, que nous opérons sur des dents cariées. Alors il serait peut-être bon qu'il existe une certaine relation ou plutôt un contrôle entre les expériences cliniques et celles du laboratoire. On jetterait ainsi un peu de lumière sur les réactions, qui se produisent dans ces cas avec ces matériaux et dans des conditions qui ressemblent davantage à celles dans lesquelles, nous travaillons usuellement. Donc, cette étude a été faite pour étudier:

10. la réaction de la pulpe aux ci-silicates placés dans des dents saines.
20. la réaction de la pulpe de dents cariées ou érodées aux ci-silicates.
30. le taux de pulpes mortes dans des dents obturées de silicates.

Etudes Histopathologiques

Dans la première partie de cette étude, on prit trente dents humaines exemptes de carie ou d'érosion. Toutes, provenaient de patients dont l'âge variait de 19 à 55 ans, à qui on avait extrait ces dents pour des raisons prothétiques. On prépara des obturations aux surfaces labiales de ces dents et au tiers gingival des dents antérieures. Tous les efforts furent faits pour contrôler les facteurs traumatique et thermique. La plupart des cavités furent obturées de silicates, mais cependant, pour fins de contrôle, quelques-unes furent obturées à l'oxyde de zinc-eugénol. Il a été prouvé dans nos laboratoires (11) et plusieurs autres (7-9) que cette sub-

stance n'a aucun effet désastreux sur la pulpe. Une quantité de dents sans carie fut aussi utilisée pour fins de contrôle. La profondeur des cavités sur ces dents fut variée pour étudier l'effet des silicates sur la pulpe. Ces dents furent extraites à des intervalles variant d'une à quinze semaines après avoir été obturées. Ainsi, on espérait trouver quelque évidence de la rapidité et de la durée de la réaction. Pour étudier ces différentes réactions sur des dents cariées ou érodées, quatorze dents furent obturées de silicates. Ces dents furent extraites plusieurs années après la mise en place des obturations. Après l'extraction, toutes les dents de ces deux groupes furent meulées en couches très minces avec de l'eau et des pierres de poussière de diamant puis fixées à la formoline Zeuker, décalcifiées dans l'acide nitrique, recouvertes de celloïdine, sectionnées et colorées à l'hématoxyline et à l'éosine.

Pour plus amples détails, voir tableau

1. On y trouve l'âge des patients et leurs dents, qui ont servi d'expérience et de contrôle. Egalement, la durée de ces obturations et la profondeur approximative des caries.

Les ciments-silicates qui servirent à cette expérience furent achetés sur le marché courant et on utilisa les deux marques les plus connues. A cause du résultat quasi-identique obtenu avec ces deux marques de commerce, aucune expérience ne fut tentée pour essayer de les différencier.

A) Dents Humaines, Saines

Patient 1, Age: 55 ans.

Dents: 1 et 2—Elles furent obturées de silicate pendant quinze semaines. Les cavités s'étendaient approximativement au centre de la dentine. Des odontoblastes adjacents féminins ou masculins aux canalicules dentinaires situés entre le fond de la cavité et la pulpe, sont absents ou dégénérés. Le tissu conjonctif est, de toute évidence, infiltré de cellules rondes. Celles-ci consistent en lymphocytes et

TABLEAU 1 — Résumé des Expériences.

Numéro du patient	Nombre de dents	ÂGE	Dents utilisées pour la préparation des cavités	Dents obturées de ci-silicates	Avec oxide zn-eugenol	Dents de contrôle	No de sem. obturées	Cavités profondes	Cavités peu profondes
1	1-4	55	SD 1 SG 1, 2	SD 1 SG 1	SG 2	SG 2	15	Toutes	
2	5-9	48	ID 2, 3, 4 IG 3	ID 3, 4 IG 3	ID 2	IG 2	6	Toutes	SG 1
3	10-15	39	SD 1, 3 SG 1, 2, 3	SD 1, 3 SG 1, 2, 3		SD 2	11	SD 1, 3 SG 2, 3	
4	16-19	55	ID 1, 2 IG 1, 3	ID 1, 2 IG 1, 3			6	IG 3	ID 1, 2 IG 1
5	20-24	42	SD 3 SG 3 ID 2, 3 IG 1	SD 3 SG 3 ID 2, 3 IG 1			8	SG 3 ID 3	SD 3 ID 2 IG 1
6	25-28	35	SD 3, 4 SG 3, 4	SD 3, 4 SG 3, 4			5	SD 3, 4 SG 3	SG 4
7	29-30	19	SP 3 ID 3	SD 3 ID 3			1	Toutes	

cellules du plasma. Dans cette région, on peut observer une résorption de la dentine.

Dent: 3—Cette dent fut obturée d'oxyde de zinc-eugénol pendant 12 semaines. La cavité avait la même profondeur que dans les dents 1 et 2 obturées de silicate. La couche de cellules odontoblastes est intacte. Aucune infiltration de cellules rondes. La pulpe est normale.

Dent: 4—Cette dent de contrôle sans cavité ou obturation a une pulpe normale. Patient 2, Age: 48 ans.

Dents: 5 et 7—Celles-ci furent obturées de silicate pendant six semaines. Les cavités s'étendent en profondeur aux $\frac{3}{4}$ de la dentine. Les odontoblastes adjacents aux canalicules dentinaires en contact avec le silicate sont complètement détruits. Il y a infiltration marquée de cellules rondes constituées principalement de polymorphonucléaires, de leucocytes, certaines cellules du plasma, de lymphocytes et de monocytes.

Figure No 1 (gauche) et 2 sont des microphotographies de la dent 7. La

zone d'infiltration cellulaire est en relation directe avec la forme de la cavité. Le reste de la pulpe est normal, bien que légèrement oédémateux.

Dent: 8—Cette dent fut obturée d'oxyde de zinc-eugénol pendant six semaines. La profondeur de la cavité est la même, sinon plus grande, que sur les dents 5 et 7, obturées de silicates. La couche de cellules odontoblastes est inchangée, la pulpe normale (voir Figure 1, droite).

Dent: 9—Cette dent de contrôle sans cavité ou obturation a une pulpe normale. Patient 3, Age: 39 ans.

Dent: 10—Cette dent fut obturée de silicate pendant 11 semaines. La cavité s'étend aux $\frac{3}{4}$ de la dentine. Pendant les quatre dernières semaines de l'expérience le patient se plaint d'une douleur sourde. Le tissu pulpaire est nécrotique (voir Fig. 3, gauche).

Dent: 11 et 12—Celles-ci furent obturées de ciment-silicate pendant 11 semaines. Les cavités sont presque aussi profondes que dans la dent 10. Les odontoblastes adjacents aux canalicules dentinaires conduisant à la cavité sont dé-

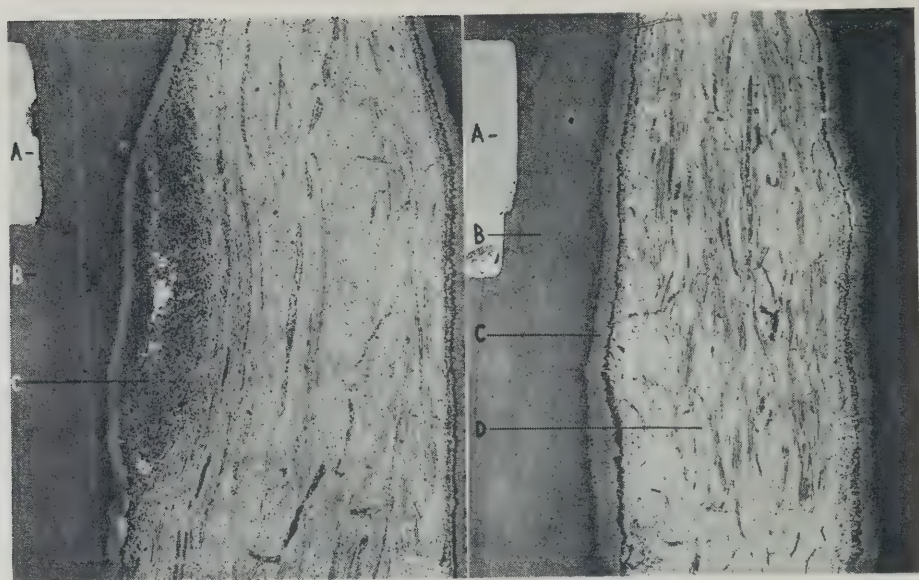


FIG. 1

Gauche; canine inférieure gauche du patient 2. (A) cavité. (B) dentine, (C) inflammation pulpaire. Cette dent saine fut obturée de silicate six semaines avant l'extraction. Il y a une réaction inflammatoire adjacente aux canalicules dentinaires conduisant au plancher de la cavité. Droite; Incisive inférieure droite du patient 2 (A) cavité. (B) dentine. (C) dentine non calcifiée. (D) pulpe. Cette dent fut obturée d'oxyde de zinc eugénol pendant six semaines avant son extraction. La pulpe est normale.

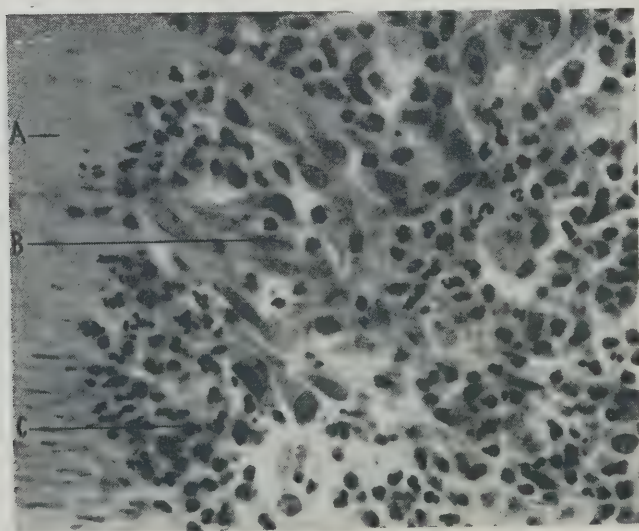


FIG. 2

Fort grossissement de l'inflammation pulpaire de FIG. 1 (gauche). (A) Dentine non-calcifiée. (B) Fibroblaste, (C) Leucocyte.

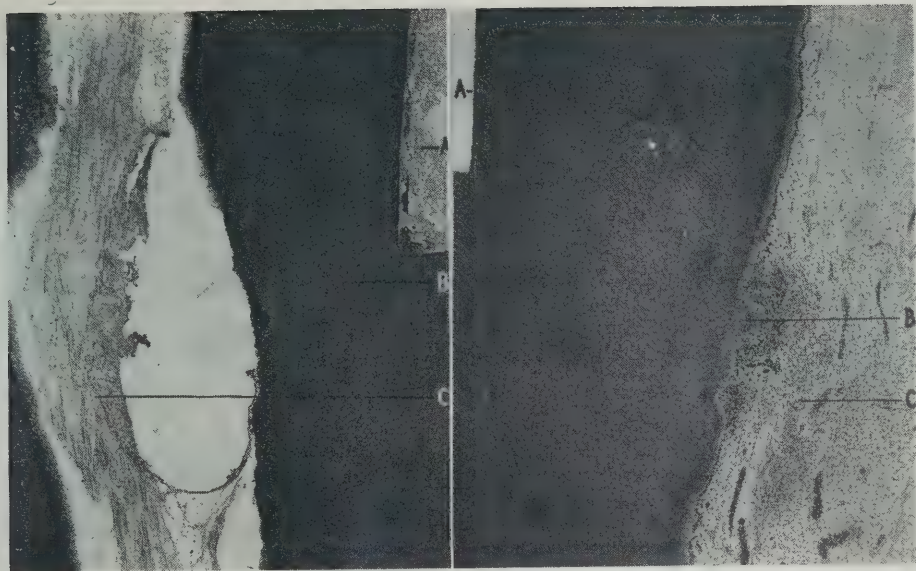


FIG. 3

Gauche: Canine supérieure droite du patient no 3 (A) Cavité, (B) Dentine, (C) Pulpe nécrosée. Cette dent saine fut obturée de silicate pendant onze semaines avant d'être extraite. La pulpe est nécrosée. Droite: Canine supérieure gauche du patient no 3 (A) Cavité, (B, C) Inflammation pulpaire. Celle-ci était une dent saine obturée de silicate pendant onze semaines avant l'extraction. L'inflammation pulpaire est adjacente aux canalicules dentinaires connexes au plancher de la cavité.

truits. Il y a infiltration cellulaire et abcès (Voir Fig. 3, droite).

On remarque des polymorphonucléaires, des leucocytes, des mononucléaires libres et des cellules du plasma, Fig. 4.

Dent: 14—Cette cavité superficielle fut obturée de silicate pendant 11 semaines. Il y a une légère dégénérescence des odontoblastes et infiltration cellulaire.

Dent: 15—Cette dent de contrôle a une pulpe normale.

Patient 4, Age: 55 ans.

Dents: 16 et 18—Ces cavités peu profondes furent obturées de silicate pendant six semaines. La couche des odontoblastes reste la même et la pulpe, normale.

Dent: 19—Cette dent fut obturée de silicate 6 semaines. La cavité s'étend au milieu de la dentine. Les odontoblastes dans la région correspondante de la cavité sont détruits. Il y a hyperhémie, hémorragie et infiltration de cellules rondes.

Dents: 22 et 24—Ces cavités superficielles furent obturées de silicate pendant 8 semaines. Il n'y a pas d'inflammation et

la pulpe est normale.

Patient 6, Age: 35 ans.

Dents: 25 et 27—Ces dents furent obturées de silicate pendant 5 semaines. Les cavités s'étendent au tiers de la dentine. Il y a dégénérescence des odontoblastes, dans la partie correspondante de la cavité, et légère infiltration de cellules rondes.

Dent: 28—Cette cavité superficielle fut obturée de silicate pendant cinq semaines. La pulpe est normale.

Patient 7, Age: 19 ans.

Dents: 29 et 30—Celles-ci s'étendent aux 2/3 de la dentine, furent obturées de silicate pendant une semaine. Il y a dégénérescence des odontoblastes dans la partie correspondante de la dentine avariée avec inflammation grave de la pulpe et infiltration de cellules rondes. Un abcès est localisé dans la région adjacente des canalicules communiquant avec les cavités.

B. Dents Humaines. Cariées ou Erodées

Dents: 31 et 32—Ces dents présentaient des surfaces érodées en forme de coin

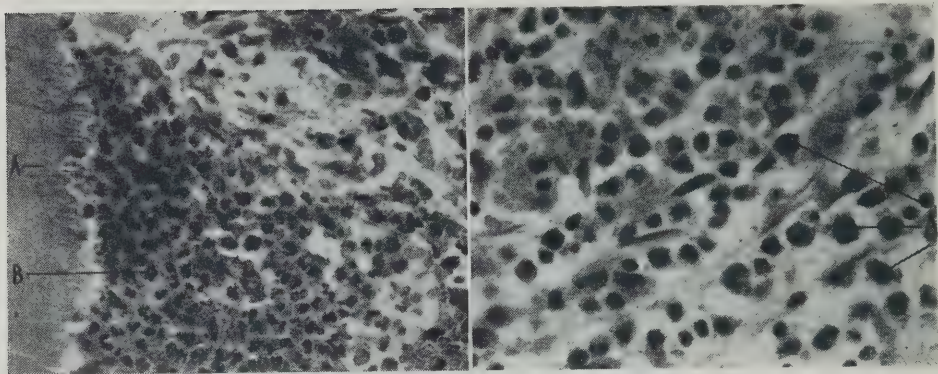


FIG. 4

Fort grossissement de l'inflammation pulpaire dans la Fig. 3. (droite): Gauche: région, près de la dentine: (A) Dentine non-calcifiée; (B) Leucocytes. Droite: Région extérieure à l'hémorragie (A) Cellules mononucléaires libres.

Elles furent obturées de silicate pendant six semaines. Les cavités s'étendaient dans toute l'épaisseur de la dentine jusqu'à la dentine secondaire (Fig. 5, gauche). Les couches de dentine secondaire ne correspondent pas à la cavité. Il n'y a aucun signe de réaction inflammatoire dans la pulpe.

Dent: 33—Cette dent est légèrement cariée au tiers gingival. La dent fut obturée de silicate pendant 5 semaines. La cavité s'étend à la moitié de la dentine tant dans la partie saine que cariée. Il y a une région de dentine secondaire correspondant aux caries. La pulpe dans cette région est normale. Mais dans la pulpe adjacente aux canalicules qui ne sont pas affectés de carie mais qui sont cependant en contact avec le silicate, on y voit des hémorragies et une infiltration de cellules rondes (Fig. 6, gauche).

Dents 34 et 42—Ces dents furent obturées de silicate pendant plus de trois

ans. Les pulpes démontrent une formation secondaire de dentine isolant les canalicules conduisant à ces cavités obturées de silicate. Les pulpes sont quasi normales. La photo 6 (à droite) est une microphotographie d'une canine gauche supérieure avec obturation mésiale et distale depuis plus de dix ans. Depuis ce temps, ces silicates s'étaient avariés ou étaient tombés plusieurs fois et furent remplacés au besoin. La dernière obturation fut insérée un an avant l'extraction de la dent. Plusieurs couches de dentine secondaire isolent la pulpe des cavités mésiale et distale. La pulpe semble normale chez une personne de 39 ans.

Dents 43 et 44—Ces dents furent obturées de silicate pendant à peu près 1 an. Elles furent extraites, le patient se plaignant de douleurs sourdes, ayant commencé quelques semaines après l'obturation. Il n'y a qu'une légère couche de dentine secondaire. La pulpe est nécrosée.

(à suivre)

CHEZ NOUS ET AILLEURS

Doctorat conféré au

Dr J. A. N. Thibert

L'Université de Montréal a conféré, le 12 mars, un doctorat "Honoris Causa" au docteur J. A. N. Thibert, de Fitchburg, Mass. Cette distinction est décernée

au docteur Thibert à cause de l'honneur, qu'il a toujours fait rejaillir sur sa profession, par son esprit civique, professionnel et familial.

Ce diplôme a été conféré par le docteur Charron, doyen de la Faculté, au cours du neuvième congrès annuel de l'Association

Dentaire Franco-Américaine, tenu à Boston.

Société Dentaire de Montréal

Le conférencier du mois de mars, à la Société Dentaire de Montréal, fut le docteur Charles-Auguste Durand, qui entretint les membres de "Carie Dentaire". Cette communication était des plus documentées et des plus intéressantes et fut fort goûtée de l'assistance.

Le docteur Durand fit part aux dentistes montréalais de la publication récente par lui-même d'un volume traitant de "Carie Dentaire".

L'Information Dentaire

"L'Information Dentaire", journal d'intérêt général pour les chirurgiens-dentistes, est la seule revue dentaire de langue française hebdomadaire. Le prix

de l'abonnement annuel est de 750 francs et on peut s'abonner en écrivant à "L'Information Dentaire," 16 rue Vignon, Paris (9e), France.

L'Université de Montréal, à Chicago

Le docteur Ernest Charron, doyen de la Faculté de Chirurgie Dentaire de l'Université de Montréal, et le docteur Marcel A. Archambault, professeur d'Endodontie à la Faculté, ont représenté notre Université au Mid-Winter Meeting de la Chicago Dental Society, au mois de février. Le docteur Charron a présenté devant la section d'Endodontie de cette réunion une causerie sur les "Progrès de l'Endodontie dans la Province de Québec", tandis que le docteur Archambault a donné une clinique sur le même sujet.

NOMBRE DE DENTISTES AU CANADA

par DON W. GULLETT, D.D.S., secrétaire de l'A.D.C.

Le 21 août dernier, le secrétaire de l'Association Dentaire Canadienne fut convoqué à Ottawa, pour discuter, avec un comité spécial du gouvernement, la situation présente et les besoins futurs de la profession dentaire canadienne. Le Comité du gouvernement était composé de représentants des ministères suivants: Santé et Bien-Etre National, Département des Affaires des Vétérans et Travail. Le but de ces convocations est d'étudier les exigences de chaque profession, tant qu'au nombre de pratiquants et à la fin, d'établir un Service de Consultation pour tout le Dominion, qui dépendra probablement du Ministère du Travail. Le mémoire suivant fut présenté et approuvé en grande partie par les représentants du Gouvernement.

"La période d'après guerre a imposé une tâche immense à la profession dentaire du Canada et cela, pour deux raisons principales: 1° L'enrôlement considérable de dentistes dans le corps dentaire canadien a retardé l'activité normale des soins dentaires de la population; 2° Les avantages accordés, au point

de vue dentaire, aux licenciés de l'armée par le Département des Affaires des Vétérans a accru sensiblement le travail des dentistes.

Cette nouvelle besogne, à elle seule, impose aux dentistes du Canada un surcroît temporaire de soins dentaires. Cette somme de travail est peut-être la plus considérable de toute l'histoire de la profession."

La conséquence de cet état de choses est la difficulté probable pour les citoyens de certaines régions, de faire traiter leurs dents, maintenant même la guerre finie. La profession s'efforce, en collaborant étroitement avec le Département des Affaires des Vétérans, de traiter ces démobilisés et d'améliorer ainsi l'état de santé de ceux qui ont servi durant la guerre. A cette heure, cette demande particulière est à son point culminant et n'est que temporaire. Le public en général devra être patient et attendre une diminution graduelle de cet afflux d'ex-militaires, chez les dentistes. Les conditions actuelles du logement ont compliqué le rétablissement dans la

pratique civile des dentistes licenciés. Environ 80% des membres du Corps Dentaire ont quitté l'armée et ont repris leurs cabinets. Cela est de nature à soulager cette tension.

Durant les années de guerre, presque tous les finissants durent entrer au service de l'armée. Les diplômés de cette année entreront en clientèle.

Un nombre sans précédent de cabinets dentaires vont être ouverts, cette année, par des dentistes licenciés et par des finissants. La rareté des locaux a retardé l'établissement de ces nouveaux bureaux. Dans cette période de transition, il y a eu des non-sens, dans la distribution des membres de la profession dentaire; cette situation devrait se corriger dans quelques mois.

Depuis 1938, il y eut au Canada une augmentation de 10% du nombre des dentistes. A notre connaissance, notre pays est le seul au monde dont le total de dentistes ait augmenté durant la guerre. De plus, les écoles dentaires ont des classes exceptionnellement nombreuses. Comme résultat, nous croyons que bientôt le nombre de dentistes sera suffisant pour répondre aux besoins de la population. La proportion de dentistes en rapport avec la population va diminuer et baissera encore davantage quand les étudiants actuels auront terminé leurs études.

Durant ces dernières années, il y eut une augmentation certaine du nombre des dentistes canadiens et il faut espérer que cet accroissement ne s'arrêtera pas là. Les services rendus par le Corps Dentaire Canadien, en temps de guerre, et les avantages dentaires offerts par le Gouvernement aux démobilisés sont des sources appréciables d'éducation d'hygiène publique.

Pour l'avenir, différents facteurs, comme l'adoption de programme de santé publique, les conditions économiques générales, l'état de l'embauchage, l'abondance des commodités de la vie, vont augmenter la clientèle. L'expérience nous montre que des changements radicaux devront être réalisés dans l'organisation des services sanitaires du Canada, si nous

voulons avoir un nombre suffisant de dentistes pour répondre à ces demandes futures.

Le chiffre total du nombre de dentistes pour ces dernières années est le suivant (à compter du 1er janvier):

1938	4,174
1943	4,294
1944	4,405
1945	4,529
1946	4,565

Pour comprendre le besoin de dentistes pour l'avenir, on doit bien connaître la situation présente et bien considérer l'expérience du passé. Comme nous le disions plus haut, l'absence des dentistes requis par l'armée a occasionné une accumulation de soins dentaires dans la population civile. Les civils, par contre, jouissaient d'une prospérité due à une carence de marchandises de toutes sortes. Le Ministère des Affaires des Vétérans a aggravé cet état de choses, en demandant à la profession dentaire de traiter les licenciés de l'armée à un moment, où tous les dentistes de l'armée n'avaient pas repris leur activité civile. Un changement à cet état de choses peut être entrevenu dans un avenir rapproché.

En vue de l'avenir, un organisme indépendant a fait un relevé en 1939, à Toronto, des statistiques concernant la profession dentaire. Une de ces statistiques est importante, parce qu'elle est en rapport avec le besoin de dentistes pour l'avenir, et ces chiffres s'appliquent à peu près, à toutes les autres provinces. Cette enquête posait la question suivante: "Quel pourcentage de votre temps productif, avez-vous dépensé à votre fauteuil, en 1938?" 122 dentistes ont répondu. Les chiffres suivants donnent un aperçu des réponses en relation avec le revenu:

Revenu	Moyens de temps
\$5,000 et plus	82.8%
\$4,000 à \$4,999	79.1%
\$3,000 à \$3,999	66.8%
\$2,000 à \$2,999	55.9%
\$1,000 à \$1,999	43.7%
En-dessous de \$1,000	35.0%

Les moyennes ci-dessus montrent qu'une proportion considérable de temps n'est pas occupée au fauteuil. Donc, en réalité, on peut prévoir cette alternative, d'abord employer le nombre de dentistes qui existaient en 1938, ensuite, absorber une augmentation actuelle de 10%, amenée par les étudiants, qui finiront leurs cours dans les prochaines années.

Ces considérations peuvent servir de base pour déterminer le besoin d'un nombre additionnel de dentistes et pour étudier les inscriptions d'élèves dans nos Universités.

La formation dentaire est faite de deux années pré-dentaires et de quatre années dentaires proprement dites.*

L'organisation des cours varie selon les différentes écoles. En février, 1946, l'inscription des étudiants était la suivante:

1ère année	201
2ième "	88
3ième "	126
4ième "	103
Total "	518

Il faut ajouter à ce chiffre les résidents du Canada, qui étudient aux Etats-Unis, surtout des habitants de la Colom-

bie Britannique. Il y avait vingt étudiants canadiens dans les écoles américaines en 1944. En vue de l'inscription, comme étudiants, des licenciés de l'armée, chaque Ecole canadienne a fixé le maximum d'élèves qu'elle peut recevoir, dans une classe. Les réponses sont les suivantes:

Dalhousie	10	(10)
McGill	35	(16)
Montréal	60	(24)
Toronto	200	(50)
Alberta	40	(14)
TOTAL	345	

Ce nombre représente le maximum d'élèves pouvant recevoir une formation adéquate. Les universités ont des capacités limitées, surtout en ce qui regarde l'enseignement clinique. La moyenne du nombre d'élèves des six dernières années est indiquée dans les parenthèses. Chaque faculté s'efforce d'accommoder le plus grand nombre d'étudiants possible. Les classes pré-dentaires sont remplies à capacité.

Le 15 août 1946, les chiffres fournis par les universités au sujet de l'inscription d'automne sont les suivants:

* *Note de la Rédaction:* A l'Université de Montréal, le Cours se Compose, de Quatre Années Seulement.

LA BIOPSIE DES TUMEURS EST-ELLE DANGEREUSE?

1) Des rats greffés de fibro-sarcomes, d'adeno-carcinômes et de cancers muqueux ont été opérés et leurs réactions ont été observées et comparées avec celles d'autres rats atteints des mêmes néoplasmes, pour noter la durée de leur survie, après la transplantation, et le pourcentage des métastases survenant après cette intervention;

2) La période de survie fut prolongée d'une façon appréciable sur les rats portant une greffe fibro-sarcomateuse, quand cette greffe fut excisée 9 jours après la transplantation, mais les métastases pulmonaires ou glandulaires ne subirent aucun changement;

3) La période de survie des rats portant une greffe d'adeno-sarcome fut augmentée considérablement après l'ablation en masse de la tumeur, 60 jours après l'inoculation;

4) Une simple biopsie prélevée sur les rats greffés d'adeno-sarcomes ne produisit aucun effet sur la moyenne de temps de leur vie, après cette intervention, et aucune augmentation sur le pourcentage de métastases pulmonaires et glandulaires;

5) Une simple biopsie de cancers muqueux n'affecta en rien la survie des rats ou le pourcentage des métastases lymphatiques, pulmonaires ou du squelette.

Mann et Dunning, dans Surg., Gynec. & Obst. 82: 572, Mai 1946.

Cours de Perfectionnement à l'Université

Les cours de perfectionnement, donnés sous les auspices de la Fondation W. K. Kellogg, se continuent durant le mois d'avril.

Les dates de ces cours sont les suivantes:

Endodontie: Avril 25, Mai 1 et 8 (journées entières)

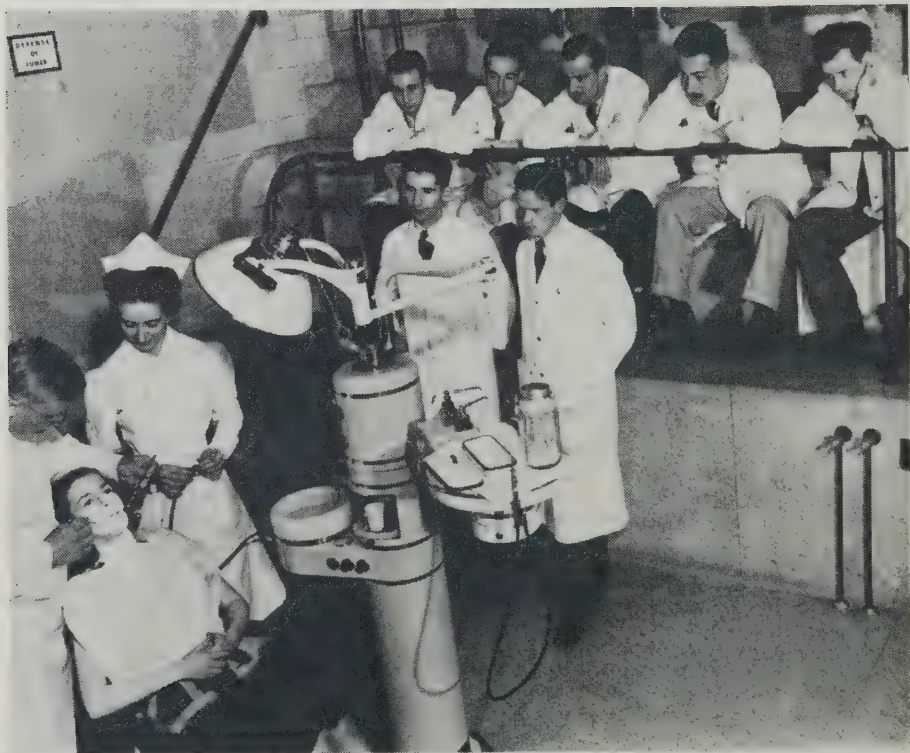
Avril, du 21 au 26 (5½ journées entières)

Prothèse: Avril, du 21 au 2 mai (matinées seulement)

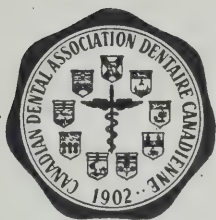
Chirurgie et Anesthésie: Avril, du 21 au 26 (5½ journées entières).

(N.B.:—Il n'y a plus de vacance pour ce cours; le total maximum des inscriptions est atteint.)

Les inscriptions pour ces différents cours se font en s'adressant au doyen, Ernest Charron, 2900 boulevard du Mont-Royal, Montréal 26. Un programme détaillé de ces cours sera envoyé sur demande.



Université de Montréal—Démonstration clinique dans un coin de l'amphithéâtre.



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D.

ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.

397 est Boul. S.-Joseph, Montréal

DENTISTERIE INDUSTRIELLE

Le rapport du Comité de Dentisterie Industrielle de l'Association Dentaire Canadienne fut un de ceux, qui furent le plus âprement discutés et un de ceux, qui suscitèrent le plus d'intérêt, à la réunion plénière des délégués des provinces, tenue à Toronto en mai dernier.

Ces préoccupations de la profession dentaire en face de ce nouvel aspect de la pratique de notre art s'expliquent par le développement pris par l'assistance sociale, au cours de ces dernières années; le bien-être de l'ouvrier, la dissémination de l'aide gouvernementale aux nécessiteux, le groupement des individus en face des dépenses nécessitées par la maladie, au moyen d'assurances sans but lucratif, etc, sont des entreprises relativement nouvelles, nées de la guerre et des périodes de chômage, qui ont précédé, de quelques années, le dernier conflit.

Il est intéressant de noter que d'autres pays ont les mêmes soucis que nous, quand ils envisagent les conditions nouvelles, ou devront s'exercer les services du chirurgien-dentiste.

Nous lisons, dans le journal suisse "Médecine et Hygiène", (1er mars 1946) les conclusions suivantes d'un article bien documenté sur les problèmes de l'heure de la profession dentaire.

Les Soins Dentaires a l'Usine

"Le but du service à l'usine est avant tout et surtout conservatif, préventif. Toutefois, peu à peu, dans certaines entreprises on a admis que—aux frais de l'ouvrier, parfois avec une contribution de l'employeur—on puisse assurer tous les soins extractions, prothèses, etc.).

Si l'examen périodique est obligatoire—dans les entreprises ayant une influence fâcheuse sur la denture (plomb, mercure,

phosphore, industries alimentaires, etc), les frais sont, par disposition légale, à la charge de l'entreprise.

En général la réalisation d'un service dentaire à l'usine peut être ramenée à cinq types:

1. Service pour examen prophylactique, traitement d'urgence (douleurs); radiographie pour le diagnostic d'infection focale; conseils sur la nécessité de soins ultérieurs (dans ce cas, le malade est dirigé à son dentiste).

2. Service pour examen prophylactique et radiographique gratuit. Toute autre intervention est aux frais de l'ouvrier, selon un tarif.

3. Service installé par l'entreprise. L'ouvrier règle directement, avec le dentiste, les honoraires pour les prestations reçues.

4. Service assurant aussi les prestations à la famille des employés, en plus de celles prévues par le service précédent.

5. Service prophylactique, curatif (extraction, obturations, etc); rayons X. Le dentiste est payé par l'entreprise, mais une partie des frais est à la charge des employés ayant reçu un traitement."

Ces directives, données par le Dr Carozzi, professeur à l'Université de Genève, se rapprochent d'une façon étonnante des conclusions émises par l'Association Dentaire Canadienne, au sujet de la Dentisterie Industrielle.

G. DE M.

LE DENTISTE ET LA LITTÉRATURE SCIENTIFIQUE

On disait couramment, il y a vingt-cinq ans, que la profession dentaire n'était pas une "profession, qui lisait". On voulait dire par là que le dentiste amassait son savoir, non seulement technique, mais aussi scientifique, sans lectures. Pour se tenir à la page, il comptait sur des démonstrations pratiques et des cliniques; ces deux sources de renseignements formaient la grosse partie des programmes des congrès et des sociétés dentaires.

Les publications ne contenaient guère que les travaux présentés à ces occasions et les discussions, qui leur faisaient suite. Les dentistes se rendaient à ces réunions en grand nombre, mais peu d'entre eux en lisaient les relations écrites. Si telle était la situation, il y a vingt-cinq ans, elle est bien différente, aujourd'hui. On ne peut certainement pas dire que le dentiste moderne est un lecteur avide de ses publications scientifiques, mais les communications des revues dentaires et des volumes techniques sont consultées par les dentistes en général—praticiens, professeurs, chercheurs—beaucoup plus qu'il y a un quart de siècle.

George B. Denton—"Making Dentistry A Reading Profession",
Northwestern University Bulletin, janvier 7, 1946.



University of British Columbia Co-Ed Skiing at Revelstoke.

● "Senescence is a curious phenomenon. For the many it means only an inability of the body to do the feats of yesterday or obey readily the will of today; the brain still is agile and pregnant with the wisdom of the years. But in the few, the once glittering mind of ripe judgment and constant inspiration loses its light and sheds its lustre. These whims of Dame Nature make absurd the appointment of age-limits for retirement be they sixty, sixty-five, or even eighty; for it is not the span of life but the favour of the gods which brings to a close man's fitness for his calling."

—*Guy's Hospital Gazette.*





DR. HENRY L. FREELAND
Calgary, Alberta.

Associate Editor for Alberta of the Journal of the
Canadian Dental Association.

First Vice-President of the Dominion Dental Council.

Member of the Board of Directors, Alberta Dental Association.

Past President of the Alberta Dental Association, 1941; the
Calgary Dental Society; and the Calgary Gyro Club.

Member of the Staff of Holy Cross Hospital as Dental Oral Surgeon.

Lecturer on "Dentistry" to nurses, Calgary General Hospital.

Member of the Calgary Golf and Country Club; the Al Azhar Shrine
Temple; and the Ranchman's Club of Calgary.

Graduate, Faculty of Dentistry, Northwestern University,
Chicago, 1914.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, MAY, 1947

NO. 5

THE FUTURE OF DENTISTRY*

by HENRY L. FREELAND, D.D.S., Calgary, Alberta

TO Youth belongs the future—in dentistry, as in all else! As I view the past in retrospect, it is difficult for me to accept the fact that I am no longer young. The years have hurried past me, as they will so speed in the lives of the young men and women now taking up dentistry as a vocation. Recently a young man entering practice asked me, "What is the future of dentistry?" My experiences, observations and deductions, during thirty-two years of active practice, will provide only an incomplete and inadequate answer to that formidable question.

My intention, on this occasion, is to promote an examination and study of dentistry as it is taught and practised today—the significances of which may indicate the trends of the future. In a rapidly changing society the expansive field of dentistry cannot be evaluated conclusively by anyone. The trends of dental education and dental practice, however, indicate that great issues are at stake. To a consideration of these vital problems all those who are objectively interested in the future of the dental profession, should now direct their attention.

Dentistry, as it is practised today, is a comparatively new profession; it is new in a sense that modern general surgery is new. Surgery has developed as a specialty of medicine during the past century since the introduction of general anaesthesia. In like manner,

in the same comparatively short period, dentistry has evolved from the simple disorganized state of that era to the highly organized complexity of our day. During the past sixty years a wide difference of opinion has existed and still prevails in the minds of dental educators and dentists, relative to the fundamental requirements of dental education. The rapid development of dentistry as a profession has been characterized by this lack of co-ordination in the principles of education. The result is that the laity, the medical profession, and the dental profession are alike confused and perplexed as to the motivating trends of dental education and the resultant scope of dental practice. The future of the profession is a subject of great concern, therefore, to all those practising dentistry. That concern is not diminished when we learn from McCollum¹ that, "Flexner in his recent book 'American and English Universities' does not give dentistry the status of a profession."

Dental education has progressed over a difficult and tortuous course. Prior to 1870 dental practice consisted mainly of elementary extraction procedure and crude mechanical restorations. The dental teachers of that early day were obliged to proceed empirically since there existed little recorded research data or authoritative dental literature. It was not until the bacteria of the mouth had been studied by

* Presented before the Edmonton Dental Society March 4, and the Calgary Dental Society, March 10.

Miller, histological and bacteriological theories applied by Black and his contemporaries to operative dental technique, the theory of focal infection established by Hunter and Billings, (to name only a few outstanding scientific investigators) that the biological sciences received adequate attention by dental educators. Such men established scientific order amidst the chaotic confusion of their day and gave dentistry the original attributes of professionalism.

The first dental school was established in the United States in 1840. The National Association of Dental Faculties was organized in 1884. It was not until 1921 that the first intensive investigation leading toward a co-ordination of dental educational theories and requirements was undertaken by the Carnegie Foundation for the Advancement of Teaching. This Survey was completed in 1926.

In any serious discussion the sources of information must be authentic. Such a source, relative to prevailing methods and theories of dental education, is found in the Report of the Curriculum Survey Committee of the American Association of Dental Schools, entitled, "A Course of Study in Dentistry." This report was issued in 1935. It constitutes an exhaustive analysis of the curricula and teaching methods of 40 American and Canadian Dental Schools. The Chairman of the Committee was the late Dr. Wallace Secombe, then Dean of the Faculty of Dentistry, University of Toronto. His associates, leaders in Educational Research, Deans of Dental and Medical Schools, 149 in number, comprised, without doubt, the most imposing and eminently qualified group of authorities ever formed to study and adjudicate dental education. The Report is comprehensive; it covers oral health conditions of the public, dentistry and its responsibilities, the objectives of dental undergraduate study, etc.

I have stressed the authority of the Survey Committee Report, since I hope to establish from its records a

reasonable basis for the confusion and sense of frustration that exists in the minds of men who ask the question, "What is the future of dentistry?" There appears to be ample justification for this confusion. Since dental schools are the institutions from which should flow the energizing impulses that govern dental practice, dentistry of this, or any other period, is almost precisely what dental educationalists have wanted it to be. The progress of the art and science of dentistry has been spectacular, especially as related to the specialties of the profession. During the past thirty years, anatomy, physiology, pathology, histology and embryology, bacteriology, pharmacology, anaesthesia, and the principles of medicine, have been required subjects in all dental curricula. During the past ten years higher entrance qualifications for the study of dentistry have been required. Pre-dental arts and science courses have been added. It is open to question, however, whether these developments have not been more effective as a sort of educational window-dressing, than as a basis for sound, adequate, training designed to enable men to practise "The Art and Science of Medicine as related to dental organs," as Gorgas defines dentistry in the Twelfth Edition of Harris' "Principles and Practice of Dental Surgery."

Twenty-five years ago, Mayo stated that, "The next great step in medicine must come from dentistry." Mayo spoke thus in the light of the newly developed theories of the inter-relationships of oral and systemic diseases. He envisaged the development of dentistry, presumably, as a specialty of medicine, the abandonment of the trade school atmosphere by dental institutions, the progression of dental education, practice, and treatment, on biological principles. As we shall see from a study of the Curriculum Survey Report, dental education in 1935, and presumably today, stresses the theories of super mechanics, using the excuse of an 'overcrowded' curriculum,

to justify a totally inadequate and impractical medical science training. In the prevention, control, and treatment, of oral diseases 'some' knowledge will not suffice; 'all' the science of all the ages, if we may have easy access to it, is still insufficient to combat and control dental diseases.

To illustrate the confusing variations of opinion held by dental teachers, relative to the importance of a thorough background of medical science, in contrast to purely mechanical dentistry, and further, to indicate the lack of co-ordinated thinking pertaining to two subjects which are strictly dental, namely: operative dentistry, and prosthetic dentistry, the following significant facts are taken from the Survey Report: In the curricula of 40 dental schools of the United States and Canada, in 1935, the following data on hours of instruction is reported³

Subject	Lowest No.	Highest No.
	Hours	Hours
Anatomy	196	628
Oral Anatomy	80	353
Physiology	80	297
Nutrition	8	44
Bacteriology	66	242
Pharmacology	32	203
Pathology	110	286
Oral Surgery	50	110
Oper. Dent.	75	448
Dent. Prosthesis	560	1226

Operative dentistry is, indeed, a science and an art. Its high purpose is that of maintaining oral health by saving and restoring teeth to functional normalcy. The highest number of hours given by any dental school to operative dentistry was 448. Dental prosthesis is the technique of substituting artificial restorations for lost natural teeth. It is the branch of dentistry which produces the greatest financial return, and, with the exception of abutment preparations for fixed bridge restorations, requires the least expenditure of time and effort on the part of the dentist. Belding⁴ states that, "90 percent of the prosthetic restorations delivered to

the public are fabricated outside of the dental office." The lowest number of hours of instruction, in any of the 40 schools studied, for prosthetic dentistry, was 112 hours in excess of the highest number of hours for operative dentistry. Obviously, replacing teeth is a science of much greater importance in the minds of dental educationalists, than that of saving teeth. The highest number of hours for prosthetic dentistry, was nearly twice that spent on anatomy, three times as much as on operative dentistry, four times that given to pathology, bacteriology, and physiology, and twelve times that spent on oral surgery.

With the exception of the common cold, dental caries is said to be the most prevalent human disease. Nutrition is the science upon which rests our main hope for the ultimate control of caries. To nutrition, an understanding of which might save teeth; is given 1/27 of the time devoted to full and partial dentures, removable and fixed bridges.

It is almost impossible to evade the conclusion that the trend of dental education is toward a super development of mechanical techniques, and that dental educators, while desirous of providing a semblance of medical science, are unaccountably fearful of exposing the dental student to too much science. It is as difficult to understand this attitude as it is to determine, "How much science is enough, or what amount is too much."

There exists today an ever widening schism in the dental profession; one group urging that dentistry be developed as a specialty of medicine; the other fiercely and ardently defending the principle of dental autonomy. It would be interesting to know to what extent the 'Dental Autonomy Pressure Group,' if I may use the expression to designate those zealots who look upon the integration of dentistry and medicine as something inherently evil, were responsible for the arbitrary statement in the Survey Report, that,

"Although Dentistry cannot be made an accredited specialty of Medicine, it should be developed as the 'equivalent' of an oral specialty of Medicine."⁵ This disconcerting ambiguity is a poignant warning to dental educationists, that, "This far, but no farther, Thou shalt go."

Many outstanding dental teachers, many men in dental practice, hold the view that dentistry and medicine must eventually come together. I share that opinion. Such union will not take place, however, until dentistry improves its educational procedure and elevates the status of dental practice. Flexner cannot debar dentistry from professional status by the mere expression of an opinion; the determining factors are those residing in the fundamental principles and sciences of dental education, and the enlightened employment of that knowledge in dental practice.

A discussion of the 'Future of Dentistry' involves a consideration of present day dental practice in a practical and economic sense. The trends of our day establish the procedures of tomorrow. As I look back over the years, I am possessed of conflicting emotions and opinions as to the significances of these trends. All dentists must share the responsibilities since all have contributed to the conditions that prevail and the trends that predominate. The whole of my adult life has been spent in the study and practice of dentistry; I would not choose otherwise were I beginning life again. Dentistry has had its spectacular achievements and its failures. So with all vocations! I would not presume to discuss my profession objectively did I not willingly assume my personal responsibility for its sins and omissions, in all of which I have participated to the full. Since my life has been spent in close association with dentists, whose friendship I treasure, I make slight claim for originality in the opinions I offer, since they represent in effect, the condensed thought and opinions of my associates.

Some of the developments of dentistry over the past 30 years cause the heart to rejoice; others fill the mind with foreboding for the future. Dentistry of today suggests to my mind the comparison of a young man, radiant in personality, full of vigorous promise, but oppressed with an aura of bad habits which tend to blast a brilliant career. Comparable to such a young man, dentistry, a new profession, is plunging forward with the reckless and exuberant abandonment of all youth, toward a vital cross roads.

Dentistry and dentists have accomplished much. Orthodontics, the correction of congenital and acquired dental deformities, now described by some as a division of orthopaedic surgery, is a major science in preventive dentistry. To the credit of dental education as taught in some dental schools, many undergraduates today possess a sounder knowledge and a higher conception of the biological significances of orthodontics, than did the teacher of orthodontics of thirty years ago.

Operative dentistry has made enormous contributions to oral health and the prestige of the profession. It has attracted the attention and enlisted the objective thought and effort of many of the greatest men of dentistry. The evolution of the science of operative dentistry is the record of some of dentistry's greatest achievements. Based upon the indisputable premise that natural teeth, restored to functional normalcy in a healthy mouth, are of incomparable value as contrasted to restorative substitutions of any conceivable type, this science and art is associated with all that is good and great in dentistry. Gold foil restorations, inlay techniques with unlimited possibilities of development, alloy replacements of tooth form, operative restorative techniques which re-establish normal contact and occlusion, all these—and many others—represent operative advances of superlative value. Operative dentistry based

upon the principles of science, is of tremendous import in the promotion of oral health.

Dental oral surgery and anaesthesia as practised today represent outstanding advances in dentistry. Oral surgery, orthodontia, and periodontia, are practised today in their highest forms, as dental specialties. Anaesthesia, particularly conductive anaesthesia, developed in dentistry by dentists, has banished pain from dental operations. No other dental science is so universally acknowledged and accepted as a major advance in the control of human suffering. No other dental science has won the respect and admiration of the medical profession in any way comparable to anaesthesia. Pain, against which mankind has protested impotently, from which he has shudderingly retreated since the dawn of civilization, pain, in its relation to dentistry, has been subdued, controlled, and eliminated, in most dental operations. Those who criticize dentistry unthinkingly, might well reconsider; millions over the earth's surface daily give thanks to God, for the priceless boon of freedom from dental pain.

These developments, however spectacular, do not tell the whole story of modern dentistry. We must realistically reconsider the picture in its entirety. Bernard DeVoto said, "Realism is the slowest, the most difficult, and the most painful of human faculties." A realistic approach to the study of modern dentistry will reveal, that during the last 20 years in particular, dentists have devoted too much time to mechanical dentistry, and too little time to the basic functions of the profession;—Preventive dentistry and oral health. The trend of the vast majority, with which group I associate myself, has been away from science, and toward easy, quick, and highly profitable, techniques in dental prosthesis. Gold foil restorations, which require infinite patience and skill, which consume much time and energy, have been re-

placed largely by silicate cements—even in the mouths of the young where permanent operative dentistry is imperative. Removable bridges, made from a hasty impression and a wax bite (and completely fabricated in most cases by the laboratory technician outside the dental office) have come into wide use. Partial dentures of elaborate technical construction, designed with closer attention to filling edentulous spaces, than to biological requirements, have been inserted by the millions, in the mouths of Americans and Canadians, during the last twenty years. Full dentures, the un-failing sequelae of improperly adapted partial dentures and removable bridges, have been developed from impression techniques more directly traceable, in many cases, as to origin, to dental supply houses than to professional research. So volatile is dental opinion relative to the innumerable new impression techniques, the thinking of a community of dentists can be radically influenced almost overnight, by a personable supply house demonstrator with a new line of materials. This is no criticism of the dental supply dealer; it is, however, a definite and justifiable criticism of the dental profession.

In the 'lush and roaring Twenties' when purses bulged, when in the United States and in Canada presumably, the public spent fifteen times as much for liquor as it did for dentistry, four times as much in beauty parlors, three times as much for candy and soft drinks, the 'Dental Efficiency Expert' appeared on the scene. Dental practice was placed on a 'daily production basis.' Progress was measured in terms of ever expanding incomes. The 'Expert' for a fee of \$200.00 per candidate, collected at the opening of the first session, taught elementary book-keeping and divided dentistry into 'Productive' and 'Non-Productive' categories. Non-Productive dentistry was described as consisting of consultations, treatments, children's dentistry, silicate and alloy restorations, and

general preventive dentistry. Productive dentistry included full and partial dentures, removable and fixed bridges, inlays, etc., all of which, with the exception of inlays, and abutments for fixed bridges, represented dentistry that lent itself to the 'assembly-line' idea of production.

This trend reached its peak in the recent war years in the United States and Canada. It is estimated that whereas dental prosthetic restorations thirty years ago comprised approximately 25 percent of the average dental income, during the past ten years that percentage has increased from 50 to 60 percent. This is admittedly an arbitrary figure, but it is, in my opinion, a conservative statement based upon opinions obtained in discussion with representative dentists over the whole country. Belding states⁶, "Aside from the specialties, dental practice consists largely of the replacement of edentulous spaces, wherein professional service consists of, perchance, the three appointment build-up, a bite, and an impression, and from that point on, the dentist acts as a go-between, with the patient on one side of the transaction, and the dental laboratory on the other." Belding states further, that this is a state, "From which there is no turning back."

Dental remedies are highly technical, and understandably so. A denture is a biologic necessity. If dental prosthesis were practised with biological fundamentals as determining factors, there would be little room for criticism. As I see the situation today, however, purely mechanical dentistry, bearing slight relation to biological concept or requirement, has relegated preventive and operative dentistry to an inferior position in dental practice. Significantly, while fees for prosthetic dentistry have increased, the returns, from other phases of dental practice have remained comparatively static during the past 30 years. The first are far too high, and the latter ridiculously low. Simultaneously with the development, dental service has become

commercialized. Dental services vary in type in almost all instances, with the exception of the specialties, oral surgery, orthodontia, and periodontia, according to the economic status of the patient. If the atmosphere of the machine shop permeates the dental school, it can be said that its counterpart, the salesmanship method of the shopkeeper, has found its way into the dental office.

Medicine and surgery know only one method of treatment the "best" method—regardless of the economic status of the patient. The Hippocratic Oath is based on the theory that fees do not determine a differentiation in quality of service. Some of the specialties of dentistry follow this principle. I know of no orthodontist or exodontist who has more than one "best" method of rendering indicated service. The trend of modern general dental practice is toward the retailing of materials instead of offering service. Dentures, for example, of all kinds, colours, and compositions, are "sold" at varying prices. Even in operative dentistry, gold, silver, cement, are suggested, not to fulfil dental requirements but to suit the patient's purse. To quote McCollum⁷ "Isn't it rather tragic that a tooth must be lost in the best manner possible, but to save it is another matter." It is therefore, understandable that the laity and the medical profession, the two public groups most concerned with the evolution of dentistry are in some doubt as to whether dentistry is a profession or a trade.

It is interesting at this point, to examine the economic status of dentists in the light of present trends. Has dentistry been proven profitable as a vocation? There seems to exist good reason for doubt. I know of no man who works harder than a busy dentist; no occupation that develops higher nervous tension; that drains away more energy in a given time. Are the recompenses for this effort and responsibility, adequate and satisfactory, to the average dentist? Mr. James Robinson, Chicago, Sales Manager of

Thomas J. Dee and Company, offers an enlightening comment on this point⁸. He states, "In 1945, in the United States, more than 60 percent of dentists have one-chair offices, and more than 50 percent have no office help of any kind."

The report of the Dominion Bureau of Statistics issued in September, 1946, also provides us with an answer. According to this authoritative report, the net average income of 3,388 dentists in Canada for the years 1941 to 1944 inclusive, which are the highest dental income years of record, was \$4,200.00 before income taxes. Of those who had been in practice from 20 to 30 years, which period may be accepted as the highest average income period, the average net income before taxes was \$3,925.00. In the year 1944, of 3,279 dentists in practice, only 4 percent had net incomes, before taxes, of \$10,000.00.

According to my accountant, in the year 1946, a dentist of married status with one child, with an operating overhead of 45 percent (which incidentally is 5 percent lower than the average as stated in the Report) would have a net income after taxes of only \$3,600.00, from an \$8,000.00 practice; \$5,000.00 net from \$12,000.00 gross; \$6,400.00 net from \$16,000.00 gross; and only \$7,500.00 net from a gross practice of \$20,000.00. It is pertinent to observe here that there are very few \$20,000.00 practices in Canada at any time, also that any profession, or business, which operates on a basis of 50 percent overhead expense has something definitely wrong with it. Since the medical profession has been mentioned several times in this paper, it is interesting to note, as a basis of comparison that Greer Williams, in a December 1946 issue of the *Saturday Evening Post*, states, relative to the physician, "He carries a responsibility that few of us would accept. He has, however, the pride of the highest service, and the satisfaction of the 'highest average income of any profession' in America." Unfortunately, Williams does not

state the average medical income. It is inconceivable in view of the foregoing facts that dentistry in Canada occupies a comparable position.

From these figures, one may reasonably conclude, that dentistry is not a vocation that promises large financial returns. One of the reasons is the absence in dentistry of auxiliary services, such as that provided by dental hygienists, and adequately trained dental nurses, who would free the dentist from routine services and allow him to devote more attention to other important branches of practice. Another reason is the lack of adequate training in economics, and practice management, in our dental schools. Dentists give away too much of their time, in spite of low average income. A friend of mine has increased his income over a period of ten years, by more than \$500.00 yearly, by insisting upon moderate fees for consultations, examinations, pre-operative and post-operative treatments, etc. The young dentist might well consider the implications of the following illustration: My insurance adviser has stated that, beginning at age 25, \$500.00 yearly will purchase ordinary life insurance to the value of \$29,000.00, which can be surrendered at age 60 for a cash value of \$14,400.00, or left with the Company to provide a life income of \$80.00 per month. When dentists thoughtlessly squander their valuable time, they are recklessly unfair to their families, and themselves. Aside from this, the public is willing and ready to pay for such service, if the need for that service is properly explained.

As long as the public is willing to assume the financial responsibility, unprotestingly, for the high expense of modern mechanical dentistry, and as long as the laboratory technician remains satisfied with his present status, the conditions that I have stressed may not warrant concern. I think it is obvious, however, that unless dentistry sets its own house in order, rapidly changing social conditions, and

socialized governmental policies, may undertake it for us. The dental laboratory occupies an important position in related dental services. The development of the craftsmanship of the laboratory technician has been outstanding during the past thirty years. These men render an invaluable service to dentistry and dentists. In spite of the enormous amount of time devoted to dental prosthesis in the average dental curriculum, I venture the opinion, that not one dentist in 500 is possessed of the technical ability necessary to duplicate the work of the laboratory technicians of today. I can at least speak for myself; lacking their services, I could not, and would not, include prosthetic dentistry in my practice.

National socialization plans for health services are in process of development the wide world over. I am told that in New Zealand, laboratory technicians are permitted to render prosthetic dental service to the public. Is it not reasonable to expect, that some future Canadian Government, proposing socialized dentistry on a low cost basis, may suggest the introduction of similar procedure here? Should such a situation develop simultaneously with a decision by laboratory technicians to throw off the restraint of the professional degree, dental practice, as we know it today, would cease to exist. Severe as such a vital change would be, the end results might be beneficial, at that; Dentistry and dental education would be forced to concentrate upon the vital principles of oral health, and the prevention and control of dental diseases.

Dentistry, as a profession, was originally considered a branch of medicine. Chapin A. Harris, one of the founders of the Baltimore Dental College, speaking of the objectives of the college made the following statement,⁹ "The object of this institution is to give those who receive its instructions, a thorough medico-dental education, so that, when they enter upon the active duties of the profession, they may be

enabled to practice, not alone as a mere mechanical art, but upon sound scientific principles, as a regular branch of medicine."

At the time of the organization of the Dental School of Columbia University, in 1917, the following statement was issued,¹⁰ "Dentistry and dental education, are on the threshold of extraordinary developments, but are unable to take advantage of their opportunities, because of the separation of dentistry and medicine. Dentistry has been shown by recent research, to be, logically, a branch of general medicine, and to be an increasingly important factor in the diagnosis and treatment of numerous diseases which have hitherto been obscure in origin, but are now known to arise from conditions of the mouth and teeth, and can, accordingly, be controlled and prevented."

In the light of these early attitudes it is surprising that dentistry has developed as a separate profession. In spite of an ever growing conviction, in the minds of many dental educationalists, and dentists that dentistry must become a specialty of medicine, if our responsibilities as a health service profession are to be properly discharged, it is probably safe to state, that the majority of the dental profession today desire to perpetuate dental autonomy. An indication of that attitude is found in the action of the Council on Dental Education of the American Dental Association in 1945, when the Council removed the dental school of Columbia University from the list of the accredited dental schools because of the integration of medical and dental courses at Columbia¹¹. It is reassuring however, to note, that this reactionary attitude has not deterred Columbia from further intensification of its integration policies. The next step, logically, at Columbia, will be the inclusion of dentistry as a full specialty of medicine.

The dentist of today, is given just enough medical training to interest him in the wide field of preventive den-

tistry; not nearly enough to enable him to use that knowledge as a practical science. To offer an outstanding example, the Curriculum Survey Committee recommends that a dentist should be taught the fundamentals of nutrition "to enable him to discuss nutrition intelligently with the physician but not to prescribe dietary programs for his patient."

In the field of dental oral surgery for example, the dentist, and the dental student of today, is possessed of such an inadequate and incomplete background of medical science, that he is incompetent to undertake and carry out vitally necessary pre-operative and post-operative treatment. He is required to undertake serious dental surgical operations; he is only partially trained for such responsibilities. When complications arise he is forced to relinquish control and treatment to the physician, in an atmosphere of embarrassment, and frustration, as unsatisfactory to the physician as it is to the dentist and his patient. Such educational policies have retarded professional advancement; the requirements of dentistry of the future demand wider knowledge, more adequate training, and a higher concept of professional service.

The atmosphere of indecision, limitation, and restriction engendered by dental educational policy up to the present, together with the unattractive economic aspects of dental practice, has given dentistry the status of a second choice vocation as contrasted to medicine. That fact, in itself, constitutes an important reason for the trends of modern dental practice. It provides a reasonable explanation for the failure of the dental professor to develop scientific control of the ravages of dental diseases.

A study of dental literature will reveal that the majority of dental educationalists and dentists reject the proposal to integrate dental and medical curricula, preferring instead the dubious satisfaction of dental autonomy. These men are obsessed with the

fear that such a course may prejudice the status of dentistry as a profession; they ignore, blindly, the fact that our professional status is already seriously prejudiced by the sharply defined limitations of our basic medical science training.

The inter-relationships of oral and systemic diseases have been fully established. When dentists resist the suggestion of integration of dental and medical science, they give expression to an inferiority attitude which stems from their inability to discuss, lucidly and scientifically, the common problems of the dentist and the physician. To express it more aptly, dentists and physicians do not talk the same language. How, then, unless by broadening the basis of dental education, may the biological significances of dentistry be demonstrated to medicine?

Medicine embraces every major specialist except the dentist. Have the surgeons, the obstetricians, pediatricians, oculists, neurologists, the biologists, and the pathologists, suffered because of their inclusion as specialties of medicine? Is the orthopaedic surgeon whose mechanical accessories to treatment are comparable to dental restorative appliances, restricted by his background of sound medical science training? To the contrary, the orthopaedic surgeons, and the others, are accepted because of their comprehensive knowledge; the dentist is excluded because he does not possess that knowledge.

In summation of these opinions which reside in my mind as convictions, certain conclusions are inescapable. Briefly, they are:

- (1) Dental education, in concept and scope, is incontestably inadequate for the requirements and purposes of modern and future dentistry.
- (2) Dentistry as practised today is in a state of flagrant imbalance; restorative prosthetic dentistry has superseded in importance, the vital sciences of operative and preventive dentistry.

- (3) Dental surgery, to warrant continued recognition and development as a profession, must undergo drastic re-organization. Dental prosthesis is an important branch of dental practice and must necessarily, be developed accordingly; the prevention of dental diseases and the maintenance of oral health, dentistry's basic functions, must be recognized and promoted as such, in dental education and practice.

Professions are accepted and justified in relation to their contributions to public service; that is their sole reason for existence. Dentistry has contributed much to the cause of human welfare. Its future rests with its men of courage and vision who respect dentistry as a vocation, who

perceive the possibilities of high attainment in the scope of dental practice, and who teach and practise its benign principles with intelligence and devotion.

BIBLIOGRAPHY

1. McCollum, Dr. B. B. From—"What Dentistry and Dentists Have Accomplished." 'Dental Items of Interest.' May 1942. Page 442. Par. 3.
2. Report of the Curriculum Survey Committee, of the American Association of Dental Schools. 1935. 'A Course of Study in Dentistry'
3. Survey Report. 'A Course of Study in Dentistry' Pages 110 to 269.
4. Belding, Dr. Paul H. Editor 'Dental Items of Interest' May 1946. Page 501.
5. Survey Report. 'A Course of Study in Dentistry' Page 2. Par. 2.
6. Belding, Dr. Paul H. 'Dental Items of Interest' Page 501 Par. 3.
7. McCollum, Dr. B. B. 'Dental Items of Interest' May 1946, Page 443.
8. Robinson, James 'Journal of the Canadian Dental Association' May 1946. Page 225.
9. Belding, Dr. Paul H. 'Dental Items of Interest' May 1946, Page 501.
10. Belding, Dr. Paul H. 'Dental Items of Interest' May 1946, Page 500.
11. Belding, Dr. Paul H. 'Dental Items of Interest' May 1946. Page 499.

ANNOUNCEMENTS

Dominion Dental Council Examination

The Dominion Dental Council Examinations will commence on May 22, and continue on 23, 26, 27 and 28. A later examination will be held in Toronto July 15-19 inclusive.

A. J. BRETT, *Sec-Treas.*
Regina, Saskatchewan.

Université de Montréal Graduate Courses in Orthodontics

The next graduate course in Orthodontics will begin on September 15, 1947. Lectures and clinics will be given in the English and French languages. Applications for this course should be sent in as soon as possible to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal (26), Qué. Canada.

What a fool does in the end, the wise man does in the beginning. — Spanish proverb.

The usefulness of the dental hygienist as an auxiliary worker in the field of dental health service is nearly universally recognized. In those states where dental hygienists are licensed they have demonstrated that they are indispensable to economical dental practice in addition to having unique value in the field of health education.—J. O. McCall, N.Y. *Jour. of D.*

THE ROLE OF ETHYL CHLORIDE AS AN OBTUNDENT IN CAVITY PREPARATION

by M. GOLDENBERG, D.D.S., L.D.S., Montreal, Quebec

INTERIM REPORT

THE reduction or complete elimination of pain in cavity preparation has been the goal of every dentist. The list of drugs and chemicals tried with this end in view are legion, with indifferent results.

The work of Chester J. Henschel, H. E. Willis and Warner, C. F. Bodecker, Bernard Thomas and many others, have shown that thermal control in one form or another is the important factor in pain control during cavity preparation¹⁻⁶. Dr. Henschel has been able through the use of small sharp burs and a constant flow of water, and the use of heated medications, to prepare and dress a cavity with the minimum of discomfort to the patient. The principle of refrigeration to reduce pain in surgery has been advocated and practised by medical men for a long time⁷⁻¹³.

In dentistry these principles have been applied in the form of a continuous jet of cool water, cool air, ether, chloroform and alcohol or a combination of these.

Some interesting work has been done by J. S. Restarski, in cavity preparation using a local refrigerant with some excellent results¹⁴.

The writer decided to use ethyl chloride as an obtundent in the form of a fine spray. The results were very gratifying and the technique simple. There is a reversible action of this chemical on the tooth with no neutralizing agent necessary and very little or no pain on application on most teeth if done with care. A fine spray of ethyl chloride of approximately one second duration on a previously dried tooth will permit preparation of most cavities with either complete absence of pain or at most a negligible reaction from the patient.

This report covers such operations as: cavity preparation on all surfaces,

full and $\frac{3}{4}$ crowns, deep scaling and equilibration of occlusion, on over one thousand teeth. Teeth were tested for pain reaction before being treated with ethyl chloride. Postoperative, subjective, and objective symptoms were studied. Electrical, thermal and percussion tests were made before and after such cavity preparations. Teeth were also checked at intervals: immediately after preparation, 24 hours, 48 hours, one week, two weeks, one month, two months and three months later. It was found that any hyperaemia which may have been caused was transitory both on adults and children. There are no apparent changes in the reaction of teeth treated in this way.

TECHNIQUE FOR CENTRALS, LATERALS, CUSPIDS.

Dry the tooth with cotton roll or warm air, direct a fine stream or a series of short spurts of ethyl chloride to the enamel for approximately one or two seconds, then proceed to prepare the cavity immediately.

Bicuspid and molars: direct stream of ethyl chloride to buccal surface of the crown. Should there be any sensation of pain make another application on lingual or palatal side as well. Care should be taken where there are large fillings not to cause pain on application. Always direct stream on the enamel, and never for more than a second at a time. Should there be any manifestation of pain before the work is finished a second or third application may be made. The usual care should be taken not to overheat the pulp. To counteract any dehydration which might be caused by the ethyl chloride the tooth should be kept moistened. This may be achieved by frequent washing with tepid water. Both the dentist and the patient will derive a great satisfaction from cavity preparation done in this manner.

CONCLUSIONS

No changes in pulp reaction have been noticed over a period of 3 months.

The method used is simple and the chemical is always at hand.

Any pain manifested by the patient on application can be reduced by applying the ethyl chloride in very short spurts of a fraction of a second. The burs must be sharp and the tooth washed at intervals with room temperature water. Overheating of the tooth must be guarded against.

One treatment with ethyl chloride is usually sufficient for the preparation of simple cavities, interproximally in the anteriors and gingival cavities in all teeth.

More than one application may be made when preparation takes in more than one surface.

REFERENCES

1. Heat Impact of Revolving Instruments on Vital Dentine Tubules. Chester J. Henschel D.D.S. Journal of Dental Research. 22. No. 4. August 1943.
2. The Development of Thermal Control. Chester J. Henschel; Journal of Am. Dental Assoc. 33. 194-200 Feb. 1946.
3. Dentine Medication without Pain. Chester J. Henschel; Journal of the second District Dental Society. 31. No. 3. March 1945.
4. Heat Generated in Cavity Preparation. H. E. Willis and H. K. Warner; Austr. J. Dent. 44:62, Feb. 1940.
5. Effectiveness of Chilled Burs in Eliminating Pain. B.O.A. Thomas, J. D. Res. 20:361 August 1941.
6. Variability in Sensitiveness of the Teeth to Cavity Excavation. C. F. Bodecker; J. D. Soc. St. New York, 8:3 1941.
7. Reduced Temperatures in Surgery: Amputation for Peripheral Vascular Disease. Crossman L. W.; Ruggiero W. F.; Hurley V.; Allen F. M.; Arch. Surg. 44: 139-156, Jan. 1942.
8. Shockless Surgery: Ice Anaesthesia. Boon to aged in Limb Operations and a promise for war wounded in the field. Newman B. M.; Scient. Am. 166; 18 2-184 April 1942.
9. Refrigeration Anaesthesia. Anaesthesia and Analgesia. Crossman L. W.; and others. 21; 241-245 Sep. Oct. 1942.
10. Proof of Practicability of Refrigeration Anaesthesia. Doane J. C.; Mod. Hosp. 60. 64-65. May 1943.
11. Ice as a Local Anaesthesia. Friederwitzer W. H.; Medical Records 157. 42-43 Jan. 1944.
12. Broader Aspects of Refrigeration Anaesthesia. Allen F. M.; Anaesth. and Analg. 24: 51-65 March-April 45.
13. Refrigeration in Surgery. Johnston C. G.; Am. J. Med. 209: 253-257 Feb. 1945.
14. Dental Anaesthesia Induced by Local Refrigeration. Restarski J. S.; Journal Am. Dental Assoc. 31: 599-604 May 1944.

1396 St. Catherine Street West.

How easy it is to assume tacitly that money supplied by the Government does not cost anybody anything! Nearly everybody engaged in work financed from governmental funds becomes extravagant and wasteful. The expenditure of large sums of money appears to inspire feelings of importance and superiority. Yet every dollar of government expenditure is ultimately derived from productive labour.—

A.A.A.S. Bulletin

If you stand to one side and watch a group of table clinicians through the cigar and cigarette smoke, attended by a typical dental audience, peculiar facts and peculiar types in the audience come to light. In the main, the listeners are orderly and well-mannered as are the majority of Americans en masse. A few typical cases are present but they seem especially irksome. The worst type in any audience is the "Sunday morning quarterback" who wants to give the clinic for the clinician; he is garrulous, usually in a booming voice. Then there is the critic who thinks everything the clinician says is wrong and thinks it out loud to his neighbours left and right. A third type is the one who paws models, mixes them up and mayhap drops one on the floor. The boor to end all boors, blue ribbon wearer and champion in his class, is of course the fellow who combines all the above ill manners wrapped up in one suit of clothes.

Luckily ill manners are not a stock in trade of the majority of dentists. However, we must all remember that table clinicians are doing a labour of love and we should accord them every consideration; in return for this, the quiet listener can learn something from every clinician.—From Editorial in Illinois D. Jour.

ANNOUNCEMENTS

1947 National Convention

Reservations have been coming in so freely for the Meeting at Digby that Hotel accommodations are going to be strained to the limit. Between "The Pines" and the two other tourist hotels within a radius of five miles not more than five hundred and fifty guests can be accommodated. As about five hundred reservations are now (Apr. 7) booked, late applicants may have to be content with tourist cabins or hotel accommodations at more distant points.

The most direct train connection to Digby from Quebec and Ontario is the 3:15 P.M. Canadian Pacific out of Montreal on June 23. This arrives in St. John at 6:45 A.M. making connection with the Digby boat sailing at 7:30. Breakfast is served on the boat, which arrives in Digby at 10:30 A.M. A summer excursion rate has been put into effect by the Canadian Passenger Association between Ontario and Quebec and Nova Scotia. The return fare is reduced to one and one tenth of a one way ticket. As this reduced fare does not go into effect until June 23, any delegates who must depart on the twenty-second will probably have to buy ordinary return tickets to Montreal. The excursion ticket may then be purchased for Digby at the reduced rates on the twenty-third.

Motorists are advised that cars should be loaded on the boat at St. John the evening of June 23. Due to the early hour of departure in the morning, state-room sleeping accommodation on the boat is reserved for those parties having car ferry reservations.

The Handicraft Exhibit, scenic movies of the province and a tea are special features for the ladies. The President's Reception and Dance, Golf Tournament, Scenic Historical Tour and Chowder Party, and other features are available for general entertainment. Deep sea fishing trips are available for smaller parties.

Following are listed the distinguished Essayists and Group Clinicians who with the Table Clinicians are featured on the program:

Essayist

Dr. Basil G. Bibby, Dean of Tufts College Dental School; Prof. of Pathology and Bacteriology, Tufts College Medical and Dental School; Member of Research Commission of the A.D.A. Editor of "Biological Abstracts."

SUBJECT:—

"Recent Advances in the Control of Dental Decay."





Essayist

Dr. M. H. Jacobs, Lecturer of Tufts College and Forsyth University, Boston, consulting Oral Surgeon at Charlesgate Hospital, Cambridge, Mass. Chief, Dept. of Oral Surgery, Forest Hills General Hospital, Boston.

SUBJECTS:—

1. "*Lesions of the Oral Mucons Membranes.*"
2. "*Clinical Oral Pathology of the Jaws.*"



Essayist

Dr. Paul K. Losch, Stomatologist Children's Hospital, Boston, Assistant Professor of Clinical Dentistry, Harvard School of Dental Medicine.

SUBJECTS:—

1. "*Case Presentations from the Dental Dept. of the Children's Hospital.*"
2. "*Our Future in Dental Pediatrics.*"

ANNOUNCEMENTS

Essayist

Dr. M. G. Whillans, Graduate Toronto University, Post Graduate fellowships Banting Institute and Harvard. Engaged in Aviation Medical Research with the R.C.A.F. during the war. Professor of Pharmacology at Dalhousie University.

SUBJECT:—"Recent Research on Anaesthetics and Analgesics"

Group Clinicians

- DR. P. G. ANDERSON, Toronto "Anterior Fixed Bridgework"
 DR. C. C. BASTIAN, New York "Porcelain Jackets"
 DR. J. A. BOTHWELL, Toronto "Full Denture Prosthesis"
 DR. J. C. COUPLAND, Ottawa "Principles of Radiodontic Interpretation"
 DR. RAEBURN DAVENPORT, Boston "Teaching your Town about Teeth"
 DR. GERARD DE MONTIGNY, Montreal "General Principles of Oral Surgery"
 DR. HENRY GOLDMAN, Boston "Treatment of Periodontal Pocket"
 DR. I. K. LOWRY, Montreal "Objectives and Accomplishment in Full Denture Construction"
 DR. H. J. MERKELEY, Winnipeg "The Accessory Muscles of Mastication and their bearing on Full Denture Construction"
 DR. A. D. RICHARDSON, Montreal "Exodontia".

Annual Seminar for the Study and Practice of Dental Medicine

The West Coast's Fourth Annual Seminar for the Study and Practice of Dental Medicine will be held at the Ahawahnee Hotel, Yosemite Valley, California, October 19 to 24, according to an announcement by Dr. Hermann Becks, President of the Board of Directors and Professor of Dental Medicine at the University of California.

Sponsored by all the Pacific Coast Dental Associations, the Seminar combines lectures with informal group discussions and question periods. The lectures will be on non-mechanical subjects, emphasizing the application of the basic sciences to the practice of dentistry, and will include such topics as nutrition, enzymology, endocrine disturbances, virus diseases, and protein biology.

Among the speakers will be:

- Dr. William A. Albrecht, University of Missouri;
 Dr. Allan G. Brodie, Dr. Isaac Schour, and Dr. John B. Youmans,
 University of Illinois;
 Dr. Thomas Francis, Jr., Dr. Howard B. Lewis, and Dr. L. H. Newburgh,
 University of Michigan; and
 Dr. Gustav W. Rapp, Loyola University, Chicago, Illinois.

The number of Seminararians will be limited and applicants are required to submit a case report and must have attended a post graduate course in the basic sciences or its equivalent, during the current year.

ANNOUNCEMENTS

Annual Meeting of C.D.A.

The dates for the Annual Meeting at Digby, Nova Scotia are as follows:

BOARD OF GOVERNOR'S MEETING

Friday, June 20, beginning at 1.00 p.m. o'clock to Tuesday, June 24, 1947.

NATIONAL CONVENTION OF CANADIAN DENTISTS

Tuesday, June 24, beginning at 2.00 p.m. o'clock to Friday, June 27, 1947.

Western Canada Dental Society

The joint convention of this Society with the British Columbia Dental Association will be held at the Banff Springs Hotel, Alberta, on June 13-14-15.

Montreal Dental Club, Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel on October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration, two progressive clinics, essays, table clinics, visual education and other interesting features.

Any practitioner interested in presenting a table clinic at this meeting should communicate with Dr. C. C. Bourne, 1414 Drummond St., Montreal.

M. L. DONIGAN, *Director*, 1414 Drummond St., Montreal

American Dental Association Convention

Hotel reservations for the 88th annual meeting of the American Dental Association at Boston, August 4 to 8, should be made immediately.

Application blanks for reservations plus instructions for filling them out may be secured from the A.D.A. Housing Bureau, 80 Federal Street, Boston 10, Mass.

Because of the large attendance expected the Housing Bureau has formulated strict rules for the handling of all hotel reservations.

All reservations made will be subject to confirmation by the holder by July 15. Forms for this purpose will be sent to reservation holders by the Housing Bureau about June 15. Failure of the holder to confirm reservations by July 15 may result in their cancellation at the option of the Housing Bureau.

American Academy of Periodontology

Boston, Mass.—July 31 to Aug. 2. Headquarters, Hotel Copley-Plaza.

Assistants' Convention at Banff Cancelled

Owing to lack of suitable accommodation the convention of the Canada Dental Nurses' and Assistants' Association which was to have been held at Banff in June has been cancelled. Every effort has been made to arrange for this meeting but difficulties have proven insurmountable.

International Dental Congress in 1947

The 10th Congress which was to have been held in London in 1941 is to be held in Boston in August, 1947, on the invitation of the American Dental Association.

The Forum

FLUORINE AND DENTAL CARIES

by H. TRENDLEY DEAN, D.D.S., Bethesda, Md.

Conclusion of paper in Am. Jour. of Ortho. and Oral Surg., Feb., 1947

The consistency of the fluorine-dental caries relationship is remarkable. Both the order of the epidemiological events and the findings of the laboratory point unmistakably to fluorine. On the basis of concomitant variation, the epidemiological evidence in respect to domestic water supplies is particularly impressive; within certain limits, the fluoride variable cannot be changed in quantity without affecting the phenomenon (dental caries prevalence).

It appears that the fluorine content of the domestic water is destined to play an important role in dental hygiene. Even at this stage of the development, there seems much justification for classifying domestic water supplies on the basis of dental health into one or the other of three groups:

1. Those carrying naturally the optimal concentration of fluoride; i.e., about 1.0 part per million, no treatment being required.
2. Those carrying an excessive concentration of fluoride requiring the removal of the excess in order to protect the population against endemic dental fluorosis (mottled enamel).
3. Those deficient in fluorine to which fluoride might be added to bring its concentration up to the optimal in order to lessen the amount of dental decay in the community.

Should the high attack rate of dental caries be subject to mass control measures, such as the low fluorination of the domestic water, the influence on dentistry as at present practised is obvious.

CLINICAL STUDIES OF DENTAL CARIES SUSCEPTIBILITY IN YOUNG DIABETICS

by M. MICHAEL COHEN, D.M.D., Boston

Summary of paper in Jour. of A.D.A. Feb. 15, 1947.

The caries susceptibility of 27 young diabetics, aged 6 to 30, has been studied for an extended period. The clinical observations have been supplemented by repeated roentgenograms. Contrary to prevailing opinion, no decreased caries susceptibility could be detected in this group. Rather, there was an accelerated rate of tooth decay with advancing age. Limited information does not

support the belief that there is an increased salivary glucose level in diabetics which predisposes them to increased dental caries.

It is suggested that other aspects of salivary physiology may be altered in diabetes. Further observations on the immunological properties of saliva and the possibility of a parotid-pancreas relationship may aid in evaluating the effects of diabetes on dental caries.

THE EFFECT OF VITAMIN K ON POST-EXTRACTION BLEEDING

by RICHARD O. EMMONS, D.D.S., M.S.D.

Condensed from Northwestern Univ. Bul. Mch., 1947

The purpose of this study was to consider the effect of vitamin K on post-extraction bleeding and to determine whether or not its routine use is desirable or practical in the practice of oral surgery.

The haemostatic mechanisms of the body consist of (1) retraction of the injured blood vessels and (2) clotting of the blood. According to our present understanding of the clotting process, an enzyme, thrombokinase, is released by fragmentation of the thrombocytes against the rough surfaces of a wound. This enzyme, acting upon a substance produced in the liver, prothrombin, in the presence of calcium ions forms thrombin which in turn converts the plasma protein, fibrinogen, to fibrin which is the blood clot. Prolonged bleeding time may occur when any of these processes is interrupted. Although clotting may be prolonged when prothrombin, calcium ions, thrombokinase or fibrinogen are deficient, only a prothrombin deficiency is known to accompany a vitamin K

deficiency.

On the basis of the data presented in this thesis, one may conclude that the incidence of prolonged bleeding time due to vitamin K deficiency is indeed low. This information plus the established fact that vitamin K therapy will not improve a normal clotting time, i.e., create a super-normal clotting time, completely contraindicates any routine pre-extraction administration of vitamin K preparations.

The circumstances under which vitamin K deficiency might occur are emphasized. The most common causes are obstructive jaundice and biliary fistula, both of which prevent absorption of the vitamin. Chronic dysentery may also result in a vitamin K deficiency.

Should the oral surgeon encounter a K deficient patient, he would do well to consult with the patient's physician who can readily restore clotting time to normal by a few injections of water soluble vitamin K substitutes.

THE PORCELAIN JACKET CROWN

by H. D. GRUBB, D.D.S., Cleveland, Ohio.

Summary of paper in N.Y. Jour. of Dent. Jan., 1947.

The prepared tooth that will give the maximum support to a porcelain jacket crown will conform closely in outline to the natural form of the dentine. Its proximal surfaces will be almost parallel, the variations from the parallel being sufficient only to permit the removal of the impression without distortion.

The surfaces intended to support porcelain under direct pressure will be

perpendicular to the direction of the applied forces. The shoulder will form a right angle or a slightly acute angle with the axial surfaces, the form of the angle being more important than the width of the shoulder.

In determining the length, as well as other dimensions of the prepared tooth, the dominant thought should be that we are preparing a support for the porcelain rather than for its undue thickness.

"To suspect the full measure of one's ignorance is the first step toward supplanting this ignorance with knowledge."—Robt. K. Merton.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:

D. T. Waye, Charlottetown

QUEBEC:

E. T. Bourke, Montreal

ALBERTA:

H. L. Freeland, Calgary

NOVA SCOTIA:

Warren C. Oxner, Halifax

ONTARIO:

T. R. Marshall, Toronto

SASKATCHEWAN:

L. D. Haselton, Saskatoon

NEW BRUNSWICK:

John E. Edgecombe, Saint John

MANITOBA:

J. F. Morrison, Winnipeg

BRITISH COLUMBIA:

H. M. Cline, Vancouver

Editorial

DENTAL EDUCATION

In this issue of the Journal appears a scholarly discourse on "The Future of Dentistry" by Dr. Freeland of Calgary. The author points out that great issues are at stake with regard to dental education and that we are confused as to motivating trends. In analysing the situation it is stated that judging from the college curricula the replacing of teeth still seems to be a science of much greater importance than the saving of teeth and that the trend in dental education still appears to be a super-development of mechanical techniques, resulting, in other words, in an imbalance, in that restorative dentistry supersedes in importance the vital sciences of operative and preventive dentistry. Whether this be true or not, many of us do believe that the days when a dentist should be his own technician are gone, and gone forever, and that this situation must be faced honestly and with determination, to do the best possible for the advancement of our profession, yielding to pressures of newer knowledge in the fields of learning.

Dr. Freeland deploras, and rightly so, the very high overhead in the average dental office and would seek a solution. He further stresses the use of auxiliary help to a far greater extent than at present, particularly the hygienist, all of which we can approve with enthusiasm. We can also agree in deploring the action of too many dentists in extracting and replacing teeth by artificial structures, which teeth could well be retained in a condition of health for years. Many of us could agree, also, with the statement that there is a lack of adequate training in economics and practice management in our dental schools.

However, when the author states that our professional status is already

seriously prejudiced by the sharply defined limitations of our basic training, that dentists and physicians do not talk the same language, that the only solution is to have dentistry become a specialty of medicine if our responsibilities as a health profession are to be properly discharged, then some disagreement must be registered.

I believe that dentistry is developing fast into a great and noble profession and, in time, will take second place to none. The emphasis being placed upon the biological subjects is being steadily increased. As a finer type of student seeks the ranks of dentistry our professional status will develop rapidly. It is important that we urge the right type of young man and woman to enter the field of dentistry. In this, we have been woefully lacking. Our curricula are being steadily improved. Emphasis is being placed upon training dentists how to teach. In all but one of our Canadian universities already dentists are lecturing to medical students. Our professional stature is developing by leaps and bounds.

To become a part of medical education, however, means domination and raises explosive questions. All we have to do is to look at countries where dentistry has been so dominated. H. C. Visick, a former president of the Southern Counties Branch of the British Dental Association, a few years ago described dental conditions in England in these words:

"Emphatically, dentistry is a branch and not a mere twig growing on that of medicine, and I contend that the attempt to make it so is responsible for the miserable low standard of dentistry in this country. The dental profession is completely lacking in self-reliance after all these years of subservience and dependence, and is like a flock of bewildered sheep, harassed on every side by conflicting interests . . . America, the world over, holds the premier position in dentistry. We, in this country, seem to be quite content to follow in her train—making use of her ideas and her appliances. Can you think of a single article of modern surgery equipment which did not originate in the States, and where do you have to go if you want the very best? . . . Why is it that in dental affairs England is so far behind America? It seems to me that the reason lies in the control of dentistry by the medical profession. . . . To adopt a railroad simile, dentistry (in England) had got on the wrong line. Instead of a dental train controlled by a dental staff, running on its own lines, the dental profession is relegated to a van at the tail-end of the medical-train, with practically no choice as to its destination."

Mr. A. E. Rowlett, of Leicester, England, President of the *Fédération Dentaire Internationale*, in a letter to the writer about three months ago stated, "that just as education is child-centred with a just appreciation of the sort of man of which that child is father, just so dental education must be dentist-centred and not, as in Great Britain has been the case, an inclination to have our education medically-centred. In other words, making our dental

education eccentric, so we must speak out and find a centre for our comprehensive health service."

What is our chief aim? Is it professional status or is it ideal mouth health for all of our citizens? I take it that health service comes first and this cannot be accomplished without government aid and it is, as Rowlett points out, only reasonable to believe that public authorities, when they find the money, will want to call the tune—"He who pays the piper, calls the tune", and it would seem wise to learn what tune these governments are going to play. From wide experience in negotiating with these authorities in Britain, Rowlett believes that the mental outlook of government authorities would be something like this:—"We like you dentists, but we like medical men, we like bankers, we like engineers, but our real interest is the people, that is to say, every man, woman and child in the domain over which we govern."

We must ask ourselves, can the public be better served by insisting upon dentists obtaining a medical degree before specializing in the field of dentistry? Are the rewards in dental practice such as to encourage a man, once he has obtained his M.D. degree, continuing his studies for a few more years in order to become a dental specialist, or will he decide to practice medicine instead? Even if he does decide to go on and specialize in dentistry will he not have lost many valuable years when it is easier to acquire digital skill and efficiency in techniques?

Even from a professional standpoint does the acquisition of an M.D. degree insure high professional status? Cannot a man of noble character and scholarly achievements but with only a D.D.S. degree commend the highest professional respect? I believe that he can.

When we consider our past achievements the future looks bright with promise. It is only a hundred years since the first dental school came into existence. Now there are forty schools in the U.S.A. and five in Canada. It was not until 1897 that requirements for a good English education for admission to a dental school was seriously considered. Since then progress has been rapid due to the splendid efforts of the National Association of Dental Faculties, the American Association of Dental Schools, the International Association of Dental Research, The National Board of Dental Examiners and the Report of the Carnegie Foundation for the Advancement of Teaching and other bodies. Would we make more rapid progress if submerged as a department of the Faculty of Medicine and have complete loss of autonomy? I think not. Undoubtedly, we should have splendid co-ordination but not subordination. Our freedom and initiative should not be restricted.

Eventually we will have all basic sciences taught by university departments in such a way as to meet the needs of all professional schools associated with the university. Horner points out in his comprehensive new book on Dental Education that, even now, the splendid spirit of co-operation existing between medical and dental schools on the same campus is sufficient proof that teaching functions can be shared without loss of autonomy.

So far, we are just beginning to see our goal. We need the best students

we can find. We should do more to arouse interest in dentistry as a career in the minds of high school students. In our dental schools greater emphasis should be placed on scientific diagnosis and in restoring the mouth to a condition of health and efficiency as quickly as possible, and as economically as possible. We have accomplished much but we must accomplish more.

Charles W. Eliot, president-emeritus of Harvard University, was an outstanding personality and a great leader in all fields of education. The following comment was made by him about twenty years ago:—

"I want to congratulate you on the greatly improved standing of the dental profession among the professions. That is one of the most striking changes in public opinion that I have witnessed during my seventy years of observation of educational progress . . . I do not think I have seen during my seventy years of observation of the professions and the means of training them any change so great as that which has taken place in regard to the dental profession, and to the means of training dentists."

About the same time Dr. Gies, in speaking of dentistry said, "It must advance with cumulative success as a mode of health service, represented by a great body of independent general practitioners, it must be intellectually vigorous, mechanically facile, aesthetically felicitous, medically competent, ethically sincere, professionally keen and socially altruistic."

Another educator has said, "The conviction grows that dental education will be best advanced by hazarding the future upon an equal level with all other professional schools in a university circle and the progress will be made by meeting squarely and facing resolutely the demands which such progress implies."

Utopia has not arrived; we are still far from our goal but this writer agrees with those who hold that the reaching of our goal is dependent upon autonomy within university circles, that the relationship between dentistry and medicine should be recognized as a genuine co-partnership in the service of public health, with mutual respect for one another and for all other health agencies. Consideration for public welfare demands that this forward step be made.

Health service carried into the daily work of the dentist, dentistry's increasingly effective methods of preventing dental diseases and in their successful treatment is placing our profession upon the full service equivalent of the best possible oral speciality of medical practice. Calling dentistry a speciality of medicine does not make it so. There is no reason why the degree of Doctor of Dental Surgery should not deserve equal respect and esteem from the public with the degree of Doctor of Medicine, granting that it is held by a similar type of man; so let medicine and dentistry go forward together in closest co-operation, serving humanity and so adding to human happiness and length of life. There is no monopoly on wisdom in any profession and the dental profession, being devoted to the eradication of dental disease, will make the greatest progress if it retains its autonomy. Of course, under

these conditions, it becomes increasingly important that our teaching staffs should be fully alive to all advances in dentistry and should be prepared to boldly institute reforms if it is felt that dental education and, therefore, ultimately the community, will benefit as a result. I definitely believe that our teaching staffs are fully alive to their responsibilities.

In a personal letter just received from Dr. Ellis, the newly appointed Dean of the Faculty of Dentistry, University of Toronto, he states:—"There are great opportunities ahead which could improve the standing of the dental profession immeasurably. The dental curricula as set up at the present time needs drastic revision in keeping with trends to place dental education on a much broader foundation in the biological sciences but at the same time, correlating these sciences to their applications in dentistry. In order to accomplish this, teachers must be trained on broader lines so that they can take part in the teaching of basic medical sciences and bring certain dental aspects of these sciences into clearer perspective in the pre-clinical courses. This means the infiltration of dental graduates especially prepared for teaching dental students in these subjects."

"Another great change which must be incorporated into the dental curricula is that of a closer communication with our teaching hospitals so that dental aspects of important medical problems may be considered by both medical and dental students."

"Under such a program the dental graduate should be more than a mere excellent technician (using technician in the broadest sense), he would be a well-trained dental physician."

"Dentistry has great opportunities in the field of dental education but to be subject to the Medical Faculty would be a retrograde step."

With a viewpoint such as this we can look to the future with much confidence. Fortunately we are all working for the advancement of dentistry even though we may not all choose the same road and it is a hopeful sign when busy practitioners like Dr. Freeland begin to meditate upon these things. Let us try to be great with all our might.

M. H. G.

BOOK REVIEWS

Acrylics and Other Dental Resins, by Stanley D. Tylman, M.S., D.D.S., Professor of Prosthetics and Head of Crown and Bridge Department, University of Illinois, College of Dentistry; and Floyd A. Peyton, Ph.D., Assistant Professor of Dentistry, Department of Metallurgy, University of Texas, College of Dentistry. 480 pages. 440 text illustrations with 2 colour plates. Published by J. B. Lippincott Company, 2083 Guy Street, Montreal.

This is an excellent book on synthetic resins

and contains a wealth of information. It is written in two parts: Part one deals with the chemical and physical nature of synthetic dental resins and related materials. Part two treats of the clinical application of synthetic resins and techniques involved in their use. In this volume an effort has been made to bring together many studies in this field in a condensed discussion and including an extensive list of references at the end of each chapter. Indeed this new book is an answer to a great need among dentists today because of the in-

creasing use of "Acrylics" in Restorative Dentistry.

The authors are recognized authorities on their subjects and they cover all the accepted uses of synthetic resins in dentistry. They do not offer these materials as a panacea; instead, their shortcomings as well as their advantages are presented. In part one while setting forth an analysis of the chemical and physical nature of resins, the effect of plasticizers, catalysts, pigments, etc., are included as well as valuable data on processing these resins into dental restorations. In part two applications and techniques are discussed relative to colour perception, acrylic inlays, crowns, fixed bridges, partial and complete dentures, repairs and replacements, velum obturators and somatoprostheses, etc. The discussion is not confined to one technique but satisfactory and accepted methods of using synthetic resins are presented.

A study of this book would be of great interest to any dentist, would give him a better understanding of this much used material, and at the same time suggest more intelligent use of these materials.

T. R. M.

The 1946 Year Book of Dentistry, edited by Lester Cahn, D.D.S., Chairman of the Division of Oral Pathology, Columbia University; George W. Wilson, D.D.S., Professor of Operative Dentistry and Dean, Marquette University Dental School; Carl W. Waldron, M.D., D.D.S., Clinical Professor of Oral Surgery, University of Minnesota; Stanley D. Tylman, D.D.S., M.S., Professor of Prosthetics, University of Illinois College of Dentistry and George R. Moore, D.D.S., M.S., Professor and Head of the Department of Orthodontics, School of Dentistry, University of Michigan. 736 pages and 502 illustrations. Published by Year Book Publishers, Inc., 304 S. Dearborn St., Chicago, Ill., 4. Price \$3.75.

To look over the names of the Editorial Staff who compiled this book is sufficient proof that this volume is well worth perusal.

The book opens with a very fine article on "The Use of Penicillin in Dentistry" by Lester R. Cahn, then follows articles on Pathology, Oral Medicine, Operative Dentistry, Oral Surgery, Prosthetic Dentistry and Orthodontics by 358 authors, articles taken from the dental journals of the world and also some medical journals.

M. H. G.

Practical Pedodontia or Juvenile Operative Dentistry and Public Health Dentistry by Floyd Eddy Hogeboom, D.D.S., F.A.C.D., Professor of Children's Dentistry, College of Dentistry, Univ. of Southern California. Former Member Health and Development Department, Pasadena City Schools. Chairman, Dental Assistant's Course, Los Angeles Junior College, 1930-37. Special chapters by Forrest Anderson, M.D., Sc.D. (Med.), Harold Hawkins, D.D.S., Thaddeus P. Hyatt, D.D.S., F.A.C.D. and Harry E. Straub, D.D.S. 503 pages. Fifth edition, illustrated. Published by C. V. Mosby Co., St. Louis, Mo., 1946. Canadian Agents-McAinsh and Co., Ltd., Toronto, Ontario. Price \$9.00.

In this book the following subjects are discussed:—Economics; Management of the Child in the Dental Office; Mental Hygiene Viewpoints on the Child; Embryology; Growth and Development of the Child's Head; Examination and Diagnosis; Cavity Preparation; Filling Materials and Treatment of Pulpals of Deciduous Teeth; Radiography; The First Permanent Molar; Prophylactic Odontotomy; Biochemical Aspects of Preventive Dentistry; Nutrition; Space Maintenance; Prosthetic Appliances; Fractured and Injured Teeth; Application of Plastics; Anaesthesia; Frenum Labii; Prophylaxis; Preventive Orthodontics; Endocrinology; Public Health.

If dentistry is to assume its proper place in Health Services, more attention must be given to the child. The chapter on Public Health has been written to give those who are contemplating entering public service an idea of what is expected of them.

Preventive dentistry starts early in life and the author aims to popularize preventive dentistry for children by the methods advocated.

Several new chapters have been added on this edition and the entire subject brought up to date.

This book will be read with the greatest interest.

M. H. G.

Dental Practice and Management, by E. R. Swank, B.M., D.D.S., Des Moines, Iowa. 318 pages and 43 illustrations. Published by Macmillan Company of Canada, St. Marten's House, Toronto, Ontario. Price \$5.00.

From even a casual study of the methods

adopted in the average dental practice one can but conclude that there is an urgent need for an authoritative book on the subject. While few practitioners of some years' standing could agree upon the ideal method of office management and for this reason could not agree with all the conclusions arrived at in this book still this treatise contains much which should prove very helpful to the average dentist, particularly to the men just entering practice. This book does not advocate commercializing dentistry but makes a plea for the profession to adjust itself to its new environment in the commercial world and so secure just compensation for its services.

The following are some of the subjects

which are dealt with in this study:—Office Arrangements, Lighting, Decorating, etc.; Records; Fees; Credits and Collections; Letter Writing; Advertising; The Office Assistant; Pedodontia; Relation of Medicine and Dentistry; Psychology of Attracting and Handling Patients; Ethics; Jurisprudence; Vacations and Hobbies.

These are times of rapid change. What was normal yesterday is antiquated to-day. It is always difficult for the dentist to adjust his practice to these changing conditions. This reviewer believes that most dentists would find this book interesting and helpful.

M. H. G.

ROYAL CANADIAN DENTAL CORPS NEWS

Organization of Corps

The Royal Canadian Dental Corps, while essentially an Army organization, will continue to provide dental treatment for the Navy and Air Force in Canada's peace time Armed Forces, it was announced by the Department of National Defence. Three companies have been formed to look after the needs of service personnel. These companies consist of a total of 95 dental officers and 142 other ranks, under the direction of Col. E. M. Wansborough, Director-General Dental Services.

Much credit goes to the Canadian Dental Association, and Dr. F. M. Lott, Professor of Prosthetic Dentistry, University of Toronto, for the fact that a fully equipped dental company was able to proceed overseas with the 1st Cdn. Division in December, 1939.

Dr. Lott was appointed Director-General of the Canadian Dental Corps on the outbreak of war, which appointment he retained

throughout the war years, retiring from the Canadian Army with the rank of Brigadier.

The CDC grew from the almost negligible service that existed in 1939 to a formidable Corps which, at its peak, included 1250 Officers and 3400 Other Ranks. There were 13 companies for the Overseas Army alone. In addition, there were three companies for the RCAF Overseas, based in Great Britain.

The Royal Canadian Dental Corps is organized today on a basis very similar to that which was in effect during World War II, but on a greatly reduced scale in keeping with the size of the peacetime Forces.

A technical Training Wing in Ottawa, under the command of Lt.-Col. K. M. Baird, will be opened during the fall in order that dental officers may be given refresher courses on new developments in the science of dentistry. The School will also provide necessary training of dental assistants and technicians with a view to their becoming qualified in various branches of the profession.

There are more things to be done in the world than one man can ever hope to do, more things to know than he can hope to learn. Culture is nothing more or less than discrimination in thought and action. We are free to choose our way of living and our work is part of it. Perhaps, it matters not what we do so long as we are fitted for it and it calls for the best in us. The whole art of living lies in developing as far as we can such talents as we find within ourselves. Dentistry offered greater scope in this direction for me than Medicine, and so my choice was made.—L. Wrangham Mason, in Dental Record.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

RETIREMENT OF OFFICERS Royal Canadian Dental Corps

The Director General of dental services reports that positive action has been taken on one section of the recommendation submitted by the Canadian Dental Association to the Minister last autumn. Royal Canadian Dental Corps (exclusive of non-professional officers of the Corps) who served on Active Service during the war 1939-45, may be permitted to serve irrespective of rank until they complete 10 years of service in the Active Force or until they attain the age of 55 years, whichever is the earlier.

This regulation became effective February 6, 1947.

Quebec Takes Action on C.D.A. Grant

The Registrar of The College of Dental Surgeons of the Province of Quebec officially notifies the Association as follows:

"I take great pleasure in informing you that, according to a resolution unanimously adopted by the Provincial Board of Dental Surgery, at its last meeting held on March 7, 1947, the College of Dental Surgeons of the Province of Quebec will, starting January 1, 1948, pay the Canadian Dental Association \$8.00 per member in good standing with the College, provided however all other provinces pay at least this amount."

Change of Representative for Saskatchewan

Notification of a change of the representative for Saskatchewan has been received from the Secretary of the College of Dental Surgeons of Saskatchewan as follows:

"This will notify you that Dr. W. M. Blair, No. 1005 McCallum Hill Bldg., Regina, Sask., is now the official representative for Saskatchewan, on the Board of Governors of the Canadian Dental Association.

Dr. L. F. Hare, Moose Jaw, Sask., has resigned as our representative."

National Health Insurance Act in Great Britain

The enactment of The National Health Service Act in Great Britain means a momentous year for the British dental profession in which many major decisions will need to be made. The Act becomes effective probably April 1, 1948. The Government will, of necessity, have to take all responsibility for the success or failure of the measure for little advice was accepted from the professions and the bill was passed with practically no amendment in spite of the amendments proposed by the official representatives of the health professions. If the Government had been amenable to the suggestions made by official health bodies in the past the position would have been very different today and both the professions and the public would have been in a better position to implement a health service for the whole population with some assurance of, at least, partial success. The enacted measure, as seen at this distance, can never hope to achieve the results advocated by its sponsors. The Act is an attempt to provide treatment services under provisions which are most unsatisfactory to the professions and we believe, will prove very unsatisfactory to the public in the long run. If a fraction of the monies, now to be expended, had been used over recent years for purposes of prevention and education the situation would now be vastly different. The present measure, it is stated, appears as if it would produce a multiplication of the abuses which existed under the limited benefits of the Act now in force.

The Health Professions are to be requested to render health services under an Act which they do not believe in and under the duress of proposed regulations which they do not consider fair. It remains to be seen whether the health services of Great Britain can be improved in such environment.

The whole result, at present, is a confused professional personnel. A Spens Committee was set up for study of proper fees for medical services and it was understood by the medical profession that the Government would accept the recommendations of that independent

ent committee. The Committee reported and the Government promptly stated that only two-thirds of the recommended rise would be granted. The result was that the British Medical Association recommended all doctors concerned to place resignations from the National Health Service. (The Spens Committee is now studying the question of proper dental fees.)

The London Letter as published in a recent issue of the Journal of Canadian Medical Association comments further upon this matter:

A similar line of action is being adopted by the dentists as a result of the new scale of fees for dental benefit under the National Health Insurance Act. The Council of the British Dental Association has advised all dentists to refuse all dental benefit letters forthwith, and to tell patients that they will treat them privately at the scale of fees rejected by the Minister of National Insurance."

"Apart from the merits of the case presented by the professions, and it is generally agreed that the claims are reasonable, it is unfortunate at this particular time that the government, through three of its Ministers, should give the impression, rightly or wrongly, that professional skill is to be relegated to a position secondary to that of economy."

Looking somewhat on the other side of the matter from a lay viewpoint a recent issue of *"The Spectator"* (London) makes the following comment on the vote taken a few weeks ago by the members of The British Medical Association as to whether or not they would cooperate in the scheme.

THE DOCTORS' DEMONSTRATION

"It would be foolish to contend that the vote of the doctors on the National Health Service Act is a matter of no consequence. When some 64 per cent of general practitioners, on whom the success of the Act will largely depend, decide uncompromisingly against any negotiation with the Minister of Health, a serious situation is obviously created. It can be argued, no doubt, that since 14,000 doctors (of all categories) out of the 56,000-odd to whom papers were sent did not vote at all they can entertain no strong feelings of hostility

towards the Act, or they would have taken the trouble to signify it. Nor is it to be supposed that anything like all the 23,000 who cast adverse votes will go as far as to decline any part in the working of the Act. The Act will, of course, be worked. Mr. Bevin has no option in the matter. The Act was not passed by him, but by Parliament, and in this Parliament was unquestionably expressing the public will. It is this that the doctors have to reckon with. They can undoubtedly make the working of the Act more difficult. They can, for a time make its working less efficient than it should be. But they cannot stop it, and at worst it is only a question of time before an ample supply of men and women now in medical schools or about to enter them will be ready to take their places in the National Health Service on which so large a section of the medical profession appears today to be declaring war. That there should be a battle at all is deplorable. It may be hoped that after all there will not be. But if there is it will be a losing battle for the doctors. The Act was fought clause by clause through the House of Commons, and every point the medical profession wanted made was made with great ability by opposition speakers. In the face of that the House gave its verdict, and after whatever delay and inconvenience that verdict will unquestionably prevail."

Recently the professions have made an approach to the Minister with a safe-guarding provision calling on the Minister of Health to insure that negotiations shall be comprehensive and that he will not rule out the possibility of further legislation. One thing is certain, a better basis of cooperation between the professions and the government, than has existed up to the present, will have to be found if the Act is to function at all properly for either the public or the professions involved.

Saskatchewan Professional Acts

"Premier Douglas moved that the law amendments committee continue its *uncompleted* inquiry into Saskatchewan's professional acts".

—SASKATCHEWAN NEWS, March 3rd.

Income Tax

"The income tax division of the department of national revenue has been sparked by the new deputy minister, F. H. Brown, into investigation in the field of people who earn high incomes but in ways difficult to check, such as brokers, slot machine operators, medical men and other professional workers".

—TORONTO STAR, March 19th.

Health Insurance

During the present sessions of the Provincial Legislatures several of the governments have made statements that health insurance will be introduced in the near future. Speaking for the Federal Government, The Hon. Paul

Martin was reported in the press as of March 23 last to have said in an address:

"The government or any political party won't be able to escape for long from facing the questions of old-age provisions and health insurance or hospitalization. We can't go on endlessly failing to solve problems because of constitutional difficulties. No one at Ottawa wants to create an octopus to enter provincial autonomy.

"But I hope that it will be possible for all provinces soon to meet with us to discuss measures that are above political partisanship, but concern the health and welfare of all Canadians".

NEWS FROM THE PROVINCES

SASKATCHEWAN

Saskatoon Dental Society

Inaugurating a plan to provide Western Canadian cities with annual Clinics, the Faculty of Dentistry at Edmonton, sent Dr. Barr to Saskatoon. He presented illustrated lectures on "Carious Lesions of the Proximal Surfaces" and "Problems of Oral Diagnosis and Treatment Planning". Dr. Barr proved to be an inspiring clinician and we hope that the Edmonton College will develop this plan to include two clinicians a year. We appreciate the efforts of Dr. Scott Hamilton the Dean, in this regard.

L. D. H.

MANITOBA

The Winnipeg Dental Society

This Society had a record membership of 130 during the 1946-47 season in spite of the membership fee being raised to ten dollars. The winter's roster of clinicians included several local men who compared quite favourably with those brought in from across the line all of whom were high caliber clinicians in their various subjects.

In March, Dr. John Abra of Winnipeg addressed the Society on "Orthodontia for the General Practitioner". Dr. Abra was associated with the late Dr. Manly Bowles well known orthodontist of Winnipeg before the recent world war. He enlisted early in the war and was overseas for over four years returning late in 1945 for demobilization with the rank of

Lieut.-Colonel, to re-join Dr. Bowles in the practice of his specialty. Dr. Abra's talk was illustrated with slides, was well received and he was congratulated and thanked by Dr. Basil Brownlee another well known orthodontist of Winnipeg, on behalf of the Society.

The April meeting of the Society was the Annual Business Meeting of the Society to receive the President's Report, the Financial Statement and to elect the new Executive for 1947-1948. Dr. Thos. Blight, the President, who presided at all the meetings of the past season with considerable efficiency and diplomacy announced that after the election of the new Executive a film would be shown which had been produced by a Study Group of nine Winnipeg dentists showing all the minute details of tooth preparation and construction of "The Acrylic Jacket Crown". This coloured film was made in Winnipeg by a film photographer of Winnipeg and was an amazing piece of high class photographic art, quite the equal at least, of anything of like nature ever exhibited here. It will be shown at the June meeting of the Western Canada Dental Society at Banff. It will no doubt be considered by all who see it as one of the best features of the Convention.

The New Executive of the Society are President, Dr. C. S. McLeod; Vice-Pres. Dr. W. Ivan Jackson; Sec.-Treas. Dr. Bert Oja; Committee members—Dr. J. O. Brown and Dr. J. B. Rumberg.

Winnipeg Dental Nurses' and Assistants' Association

On April 7 Miss Josephine DeBrincat, Provincial Department of Health and Public Welfare addressed this Association on the organization of UNRRA camps in Italy following their set-up by the Allied Commission. Miss Jane McClure, program convener, introduced the speaker.

DOROTHY A. MCCULLOCH

ONTARIO

Convention Re-Unions

The following class re-unions will be held in the King Edward Hotel on May 19, 1947, in connection with the Ontario Dental Association Convention—

Class '16 in rooms 218 and 219

Class '27 in parlour "B"

Class '37 in parlour "A"

Class '42 in Blue Room

It is also planned to have a re-union for ex-service dental personnel in the Yellow Room of the King Edward Hotel on the same evening at 6 p.m.

After class dinners all will assemble in the Yellow Room for entertainment by the following artists:—

Miss Audrey Brown, Accordionist

Miss Hazel Retsall, Dancing and Roller Skating

Mr. Mike Scott, Imitator

Mr. Jimmy Good, Comedian

Mr. Harry Gibbs, Magician

Mr. Coston, Specialties

Ex-service men planning to attend should contact Dr. Roy Kerr, 633 Danforth Ave., Toronto or telephone Toronto HA. 3237.

Arrangements are being made by courtesy of University of Toronto Dental Alumni Association.

Ladies' Dental Auxiliary, Toronto

Mrs. M. G. Boyes entertained the Executive of the Ladies' Auxiliary to the Toronto Academy of Dentistry at a buffet supper on March 31 at the home of Mrs. L. M. Grose. A silver salver, suitably inscribed, was presented to Mrs. L. R. Davison on her retirement as President by Mrs. R. W. Matchett on behalf of the Executive.

MARGUERITE BOYES

Toronto Study Club of Dental Technicians

On March 19 the members of this Club devoted the evening to demonstrations and talks by members of the Club.

Mr. C. Elliot of Hamilton gave very interesting instruction on laboratory equipment with some very good hints on how to keep it in good working order.

Mr. C. Daly chose as his subject Ceramic Technique which held the interest of the members.

Mr. E. Allingham gave a very interesting discussion of the McGrane Technique as used in dental prosthesis for the setting up of complete dentures.

Mr. S. Furrrie using a Williams Surveyor gave an interesting discussion on the surveying of removable cast and wrought wire partial denture cases.

C. BLANDFORD

Ontario Dental Nurses' and Assistants' Association

CONVENTION, 1947

The annual Convention of this Association will be held May 19-21 at the Royal York Hotel in Toronto. During the year the O.D.N. & A.A. has made a very extensive drive to include every dental nurse and assistant in the province on the membership lists of the Association. With this thought in mind the members of the Board of Governors chose "Friendship" for the theme of this year's Convention. It is hoped that this theme will be the motto of each member at Convention, and well it should be with such a charming and friendly Convener as Miss Helen Dosman of Brantford. As in past years we shall have a representative from the American Dental Nurses' Association and also from the Montreal Dental Nurses' and Assistants' Association. Once again the Committee have been able to arrange a very interesting and instructive program. There will be some excellent speakers, both at the sessions and the luncheon. The latter event will be convened by Helen Wilkinson of Hamilton and promises to maintain the high standards of past Conventions. Our Banquet honouring President Anne Kirkland of Kitchener will be a "must" on our program. Lura Edwards of Toronto and her Committee have worked for many hours in order to assure everybody of a gay

time. This year Clinics will be held on Tuesday afternoon. We all know that this is a most important phase of our Convention. It is here where each one of us has an opportunity to share our knowledge with others. If you know of just one way to help others why not present it at Convention. Miss Shirley Graham of Windsor this year's Clinic Convener will be glad to give you any particulars you need. Our Poster Contest and Special Contest are going to be rather novel this year. You will no doubt recall that there is a beautiful Cup for the best poster. The size will be similar to last year—the title "Do You Do This"—and the Convener is Miss Daisy Walker of St. Thomas. The members of the Ottawa Association decided that among us there must be some outstanding poets and therefore have suggested that each one submit a poem between 10 and 12 lines on some incident which might occur in the office. This will be worth the effort to try to be the "Poet Laureate" of the O.D.N. & A.A. There is not just one award but three, so let us get thinking and see what can be done.

You now have an idea of what is in store for you at our Sixteenth Annual Convention. It does sound enticing don't you think? The thing to do now, is to prepare to be there. Remember the date is May 19, 20, and 21, the place—The Royal York Hotel, Toronto. Will you try to be a friend, and bring a friend, and make a new friend by being present at this our "Friendship Convention?"

Ontario Benevolent Fund

It is impossible for us to forget the words of Britain's great Prime Minister, Mr. Winston Churchill, "Never has so much been done for so many by so few". Those words can be applied to the marvellous work that is being done through the Ontario Benevolent Fund. During the past war many, many hearts were lightened by some token of kindness extended by Mrs. Leta Blaber and her committee. The cessation of hostilities certainly did not mean the end of pain, and untold deprivations. Through the Ontario Benevolent Fund parcels of food, new and used clothing are sent to the people of Britain at regular intervals, and the treats and smiles of the committee members still help to brighten the lonely hours of the patients at the Red Chevron Hospital.

It is just common sense to realize that this work cannot be done without the financial support from every Affiliated Association of the O.D.N. & A.A. Neither has any Association failed in this respect. In addition to this the dental dealers have consented to forward the cheques in payment for amalgam scrap from any dental office wishing to aid the Ontario Benevolent Fund in this undertaking. The members of the committee greatly appreciate the generosity of the dentists and the cooperation of the dental dealers. The suffering that wars bring never ends, and we who have been spared that horrible ordeal must never cease to do our utmost to relieve those endless hours spent in hospitals. With this thought foremost in our minds we shall continue with the financial support and co-operation of the Ontario Benevolent Fund in order that the work will go on as long as the need exists.

RUTH JANKE

Toronto Ladies' Auxiliary

Mrs. L. R. Davison presided at the annual spring luncheon and the election of officers of the Ladies' Auxiliary to the Academy of Dentistry, Toronto, held at the King Edward Hotel, Thursday, April 17.

The guest artist providing entertainment was Miss Shirley Shipton, elocutionist.

Dr. F. Harold Shepherd, president of the Academy, brought greetings. He expressed appreciation of the work of the Auxiliary and mentioned especially the gift of a \$1200.00 bursary fund to assist ex-Dental Corps men now studying at the Faculty of Dentistry.

Mrs. L. R. Davison was presented with a bouquet of spring flowers on her retirement as president by Mrs. K. R. Harris on behalf of the Auxiliary.

The executive for 1947-48 is as follows: Past Pres., Mrs. L. R. Davison; Pres., Mrs. M. G. Boyes; 1st Vice Pres., Mrs. A. F. Cooper; 2nd Vice Pres., Mrs. F. J. Conboy; Recording Secretary, Mrs. W. W. Philp; Corresponding Secretary, Mrs. A. B. Sutherland; Treasurer, Mrs. C. I. Treadwell; Councillors, Mrs. R. G. Ellis, Mrs. K. McPherson, Mrs. K. Nicholson, Mrs. J. G. Paterson, Mrs. J. E. Verth, Mrs. F. H. Shepherd.

Dental Nurses' Alumnae

The annual convention of the Dental Nurses' Alumnae Association will be held in the Royal York Hotel and is under the con-venorship of Mrs. Margaret Carscadden. The committee have planned an interesting and informative meeting. Please register early on May 19 as the opening session begins at 10.30 a.m.

You are invited to keep in mind the luncheon on Tuesday, May 20 at 12.30 in the library of the Royal York Hotel and the reception for all graduates and friends on Wednesday evening, May 21. At this meeting prizes will be presented to winners of table demonstrations. The following members have entered the contest—Misses Barbara Brown, Florence Stevens, Gladys Whitfield, Dorothy Deering, Jean Selkirk, Innis Scherer.

Greetings to Dr. J. A. Lambertus, Eganville, Ont.

Having completed 50 years in practice, Dr. Lambertus, dean of the dentists in Renfrew County, was honoured by his colleagues and medical confreres at a complimentary dinner on April 8.

Dr. Lambertus is a colleague of whom the Canadian dental profession may be proud. He is a fine citizen, and a good dentist, highly respected by his colleagues and fellow citizens alike.

He graduated from Pennsylvania College of Dentistry at Philadelphia in 1897 and was granted an L.D.S. from the Royal College of Dental Surgeons of Ontario in 1898. He began practice in Renfrew but soon extended his service to Eganville by driving over once a week by horse and buggy or sleigh. In 1900 he decided to make Eganville his centre of activities and from there he gave dental service once a week to the community at Killaloe.

For 30 years he was the treasurer of Eganville Separate School Board, and for 25 years he served the Eganville Council, Knights of Columbus in a similar capacity. He is also a former Vice President of the North Renfrew Conservative Association. But in spite of a busy practice and the press of Community duties he always had time for diversion. He was an enthusiastic poultry fancier with an

international reputation as a breeder and exhibitor of fine Plymouth Rocks. He got a great thrill in 1924 when the Department of Agriculture presented his championship chickens from the world poultry congress at Barcelona to King George V. In addition to this hobby Dr. Lambertus has had time for quite a little fishing and hunting and he has always been a keen Baseball and Hockey fan.

During the dinner in his honour he was presented with a portable Radio from Renfrew County Dental Association by Dr. M. J. Mulvihill and a pencil set from the Renfrew County Medical Association by Dr. M. J. Maloney. On behalf of the Royal College of Dental Surgeons of Ontario he was presented with an honorary life membership by Dr. C. M. Purcell. Dr. G. V. Tario, president of the Ontario Dental Association and Dr. D. L. McKerracher of the Eastern Ontario Dental Association, brought greetings from their respective societies and paid their tribute to the guest of the evening.

Congratulations Dr. Lambertus and best wishes for many years of continued happiness in your work among your host of friends.

QUEBEC

Montreal Dental Club

At the March 17 meeting of this Club the guest speaker was Dr. James Coupland of Ottawa.

Dr. Coupland took as his subject "Can Dentistry Stand Prosperity?" and with an excellent series of slides of radiograms he showed where dentistry has been slipping somewhat during prosperous times. He thought a lot of compromising had gone on during these last few busy years: examinations were not being made as carefully as perhaps they should, and he asked for the upholding of the best principles and ideals of dentistry. As a practical step towards this goal he urged strongly the use of a routine radiographic survey in every practice, although he carefully pointed out that the x-ray is only one of the diagnostic aids in dentistry and must not be always taken as the whole answer.

"There is a tendency on the part of the profession in examining x-rays to just look for dark areas" he said. He pointed out that the size of a radiolucent area in an x-ray did

not necessarily indicate the seriousness of a given case.

Dr. Coupland dwelt upon the significance of oral disease in a health program. He suggested that perhaps many diagnoses were made upon grounds which were more emotional than scientific. He was emphatic in his statement that all pulpless teeth are not diseased teeth.

Dr. Coupland was introduced to the Club by Dr. A. W. Mitchell and thanked by Dr. J. K. Carver.

Montreal Dental Nurses' Association

At the March 10 meeting of this Association a large attendance was on hand to hear Miss A. G. Varren of the Quebec Blue Cross explain the workings of that association and the benefits to be derived from the plan.

BRITISH COLUMBIA

Vancouver and District Dental Society

The speaker for the April 1st meeting of the Society was Dr. J. H. Barr of the Dental Faculty of the University of Alberta. Dr. Barr is a graduate of the University of New Zealand (B.D.S.) and the University of Toronto (D.D.S., B.Sc. Dent.). He is presently leaving to take up an appointment in the Faculty of Dentistry, University of Texas.

At the afternoon session his subject was "The diagnosis of Carious Lesions on Proximal Surfaces of Teeth." In this talk he discussed clinical and radiographic aspects of diagnosis including in the latter the importance of interproximal examination.

In the evening he dealt with the age group from 9½ years to 12 years, discussing oral health service and diagnosis, case history, full dental history, radiographic examination, study models, caries prevention and control, abnormalities, orthodontic treatment.

The x-ray and Oral Diagnosis section of the program committee was responsible for bringing Dr. Barr and presented a particularly well organized and excellent meeting.

Dr. Barr also appeared before the Victoria Dental Society.

Elected to membership in the Society were Dr. Albert G. Lough, Dr. Murray Krasnoff, Dr. Earl Ellison and Dr. Fred Katz.

Victoria Dental Society

The winter meetings of the Victoria Dental Society have been interesting and instructive to the members attending. There has been the largest attendance in the history of the Society, due to return of members from war service to private practice, and additional members, who have located in Victoria.

At the first meeting of the Society, Dr. William Newton of the Plant Pathology Laboratory of the Dominion Experimental Station, Saanichton, presented a paper on Growth Hormones, which was well received. The name of the Victoria Dental Society was changed to Victoria and District Dental Society.

Dr. R. W. Bradley, Supervisor of Dental Services for the Department of Veterans' Affairs for British Columbia, and the Yukon, explained the operation of his department, and thanked those present for their co-operation. Dr. George Cameron, assistant to the Chief Director of Dental Services of the D. V. A., Ottawa, was a guest of the Society, and gave a short summary of the activities of his department.

During November, the Fall Golf Tournament was held. The Ash-Temple Cup for low gross went to Dr. C. N. Westwood, the B.C. Dental Cup for low net to Dr. Jack Mercer, the Ernie Hetherington Cup for 24 handicap to Dr. R. H. McDougall, and Dr. J. D. Johnson received the prize for the highest score.

One of our own members, Dr. J. C. Foote, gave us a thorough and helpful review of "Cavity Preparation." His talk on the subject was followed by a table clinic with excellent models and large drawings illustrating his address. Dr. Foote has given a great deal of time and study to this subject and his presentation was greatly appreciated.

The January meeting of the Society was addressed by Dr. R. Kuratli of Portland, who presented a helpful Table Clinic on Impression Taking for Full Dentures, and the McGrane technique for securing centric.

During February, Dr. Samuel A. Brandon of Portland, Oregon, gave an excellent practical clinic on Oral Surgery at St. Joseph's Hospital. In the evening he presented a paper and coloured movie on Oral Surgery. This was Dr. Brandon's first clinic before the Victoria Dental Society, and the members

were very appreciative of his technique and presentation.

The March meeting of the Society was addressed by Dr. J. M. Dille, Assistant Dean of the Medical School, University of Washington, Seattle. He brought greetings from the U. of W., and showed pictures of the proposed buildings and equipment of the new dental school recently established, which created a very favourable impression. Dr. Dille gave a helpful paper on the use of pre-operative and post-operative drugs in dentistry.

During the preceding several months Drs. T. G. Smith, T. W. James, W. N. Westwood, Jr., J. P. R. Bateman, J. MacPherson, Eric Gill, and J. Dohan were elected to membership.

Vancouver Dental Assistants' Association

Sixty-six members attended the March 10 meeting of this Association.

Guests of the evening were two of the girls from the Victoria Association and the very entertaining speaker, Dr. Rock Robertson, of Shaughnessy Hospital who gave a most interesting and informative address on "Penicillin Therapy."

GWEN HILLIARD

ALBERTA

Edmonton Dental Society Changes Name

At the April meeting of the Edmonton Dental Society there were 41 members and one guest present.

It was decided to change the name of the organization to the Edmonton and District Dental Society in order to make the activities of the organization available to all dentists in the area.

It was also decided to include three direc-

tors on the Executive to facilitate and improve the operations of the organization.

The Society also agreed to endorse any action to establish daylight saving time in Edmonton.

Lt. Col. K. Baird, O.B.E. officer commanding the technical training wing of the Canadian Dental Corps, Ottawa, was a guest.

Calgary Dental Society

Forty-five local dentists as well as several from outside points attended the April 3 meeting of this Society.

In the afternoon Dr. J. H. Barr, Assistant Professor of Oral Diagnosis at the University of Alberta Dental School, presented a paper on "Oral Diagnosis and Radiographic Interpretation of Caries." In the evening Dr. Barr spoke on "Caries Control and Developmental Conditions of the Adolescent Patient." Dr. Barr's lectures and radiographic studies were most informative and deeply appreciated by all present. His visit to several centres in Alberta were sponsored by the Faculty of Dentistry at the University of Alberta.

An unusual feature of the evening's entertainment was the presentation of a fine instrumental musical feature by the three daughters of Dr. C. M. Lowry, President of the Calgary Dental Society for 1947-48.

Lethbridge Dental Society

At the March meeting of this Society, Dr. John H. Barr, Assistant Professor of Operative Dentistry of the Faculty of Dentistry, University of Alberta, was the guest speaker. Members were present from Medicine Hat, Taber, Raymond, Cardston and Blairmore. Dr. Baden Powell of Calgary, President of the Alberta Dental Association, also addressed the meeting.

EMPIRE NEWS

GREAT BRITAIN

Compromise

As was generally expected, the special delegate meeting of the British Medical Association accepted their Council's resolution that the Association should enter into negotiation with the Minister of Health "provided that such discussions are comprehensive in their

scope and that the possibility that they may lead to further legislation is not excluded." Acting in the same conciliatory spirit the Minister agreed to resume discussions "in the light of this resolution" and has asked the negotiating committee of the Association to meet him in regard to the administration of the Act. This invitation in turn has been ac-

cepted by the Committee, so that the field is now set for the final stage of what has proved to be one of the most controversial incidents

in the long history of the medical profession in this country.—From London Letter in *Can. Med. A. Journal*, April 1947.

GENERAL NEWS

The Dr. W. E. Cummer Collection

It is proposed to institute in the library of the Faculty of Dentistry, University of Toronto, a depository for the letters, published articles, sets of transactions, complete and partial, and other personalia of the late Dr. W. E. Cummer who, as Professor of Prosthodontia, in the School of Dentistry, Royal College of Dental Surgeons of Ontario, later of the Faculty of Dentistry, University of Toronto, contributed so effectively to the advancement of the dental profession.

It is expected that eventually this collection will serve as a record of the progress of dental prosthesis and be made available to those engaged in research or special study.

Contributions to this collection are solicited and should be sent to the librarian, Faculty of Dentistry, University of Toronto, 230 College St., Toronto 2-B, Ont.

Presidential Message

President Truman in his State of the Union Message to Congress, January 6 said the following on "Health and General Welfare":

"Of all our national resources none is of more basic value than the health of our people. Over a year ago I presented to the Congress my views on a national health program. The Congress acted on several of the recommendations in this program—mental health, the health of mothers and children, and hospital construction.

"I urge this Congress to complete the work begun last year and enact the most important recommendation of the program—to provide adequate medical care to all who need it, not as charity but on the basis of payments made by the beneficiaries of the program.

"One administrative change would help greatly to further our national program in the fields of health, education and welfare. I again recommend the establishment of a well-integrated Department of Welfare."

"Health and General Welfare,"

New York Times 96:16

January 7, 1947, per Public Health Economics

Dentist President of Hospital Medical Board

Dr. Joseph J. Stahl of Garden City, Long Island, has been elected President of the Medical Board of Mary Immaculate Hospital, Jamaica, New York. It is believed that this is the first time a dentist has been so honoured. His election came as a result of his outstanding ability and his untiring efforts in the conduct of his own department and the hospital generally.

Academy of Oral Pathology Holds First Annual Meeting

The American Academy of Oral Pathology, organized to promote interchange of ideas and the advancement of scientific procedures, teaching and research in oral pathology and related fields, held its first annual meeting, February 9, in Chicago.

Medical Profession

"Voluntary health insurance along with legislation to provide better food, housing and clothing for the underprivileged is the 'American way' of answering the proponents of compulsory health insurance, Dr. Abraham Koplowitz declared January 21 in an inaugural address as president for 1947 of the Medical Society of the County of Kings.

"I have never seen in any compulsory health insurance bill any provision for better housing, food and clothing for any proportion of our population receiving inadequate medical care," Dr. Koplowitz asserted. "It is the lack of these necessities which is largely responsible for their illnesses. And it is fallacious to think that health insurance is the answer to their problem." Health insurance may alleviate the effects, but not the fundamental cause Dr. Koplowitz said, adding that "it would be just as logical to assume that you could repair a leaky roof by putting a patch on the ceiling." Citing the South for its 'underpaid workers and political system which the poll tax creates', Dr. Koplowitz declared that that region 'needs much more than bottles of medi-

cine for its population to maintain a proper health standard." *New York Times*, Jan. 22, 1947.
per Public Health Economics

Whole Grain Products Said Vital to Health

The nutritional values contained in whole grain cereals and whole wheat bread are vital to health, it is emphasized by Miss Margaret E. Smith, Director of the Health League of Canada's Nutrition Division.

These whole wheat products, she says, contain liberal quantities of energy-producing starches, most of the important "B" vitamins, some necessary minerals, and a fair amount of protein to supplement that obtained from animal products.

Miss Smith points out that most of the minerals and vitamins are present in the bran layer of germ of the grain kernel. She says that in the milling of ordinary white flour and processed and white cereals, the bran and the germ are removed.

She advises use of liberal quantities of rolled oats, oatmeal, rolled and cracked wheat, wheat germ, shredded wheat, graham and whole wheat bread, also rye and barley bread, and brown rice.—*Health League of Canada*.

American Dental Society of Europe to Meet in 1948

The American Dental Society of Europe has announced plans to hold its first annual post-war meeting in London, August 1948, immediately after the Olympic Games scheduled to take place in London in July of 1948.

Certification of Specialists

Requirements for certification of dental specialists in five fields of dental practice have been announced by the Council on Dental Education of the American Dental Association.

The dental specialties included in the Council's report, are oral surgery; orthodontics; pedodontia; periodontia; and prosthodontia.

Following the same general pattern used in the certification of medical specialists, the Council urged that the certification of dental specialists be national in scope and under the voluntary control of the professional groups involved. It declared:

"The desirable features of voluntary certification by professional groups seem to

outweigh the arguments in favour of government control. Already six states which have enacted specialty laws have set varying and even conflicting standards and regulations. If now the forty-nine dental examining boards of the United States should be authorized to fix qualifications for the licensing or certification of specialists . . . utter confusion and chaos would result."

Basic requirements for certification of dental specialists were listed by the Council as:

Graduation from an accredited dental school, U.S. citizenship, membership in either the American Dental Association or the National Dental Association, a license to practise dentistry, one year of advanced training, three years of practice primarily and principally in the specialty, and the passing of an examination prescribed by a specialty board.

Federal Court of U.S.A. Fines Mail Order Laboratories

Two firms which are engaged in the "mail order" denture business were fined \$100 each by Federal Judge Sullivan on February 5. These two firms are the only ones left in the country which, contrary to Federal statutes, are engaged in shipment of mail order teeth into states that require that only licensed, registered dentists take impressions.

A Compelling Point Against State-Controlled Medicine

In an address before the Medical Society of the District of Columbia, Dr. Frank Lahey cited an excellent reason why we must not tolerate Government-dominated medicine. "As we went to Germany in our time," says Dr. Lahey, "so will they come to us, because inevitably they must. We have the facilities, we have the men, we have the institutions, and we have the material in quantity. Why must we do the things which can in any way destroy this? And what will destroy it?—The abolition of one single factor—quality competition. The thing that has made medicine what it is today is quality competition; it is not price competition; it never has been price competition that has made medicine what it is. It is quality competition in surgery, in

medicine, in research, in medical literature, in any part of medicine."

Medical Times, March, 1947.

More Dental Services for Children

A national conference on dentistry for children was held in Chicago recently under the sponsorship of the Council on Dental Health of the American Society of Dentistry for Children. The object of the conference was to establish dental health councils in all communities to provide more dental services for children. Specialists who participated in the conference observed that American children are not receiving adequate dental care. Recent surveys indicate that each child has five or more defects, on the average, and that there are not nearly enough dentists in the nation to correct them.

Live Yeast and Thiamine

Contrary to common belief, recent studies have shown that live yeast is not a good source of thiamine, for only about 17 per cent of the total thiamine present in the live yeast is available. Furthermore, the inclusion of live yeast in a diet rich in thiamine from other sources results in an increased faecal loss with a markedly decreased urinary loss to levels accepted as indicating severe deficiency. The decreased absorption of thiamine from the intestinal tract was believed to be a result of removal and phosphorylation of the thiamine by live yeast cells for their own metabolic purposes. The editorial in *J. A. M. A.* (132:582 (Nov. 9, 1946)) also states that killed yeast cells appear to be a good source of the vitamin, as is dried brewers' yeast.—*Medical Times*.

Decatur Trains Assistants

The Decatur District Dental Society, U.S.A., is sponsoring something new for district societies, a training course for dental assistants.

The program consists of a series of five lectures. The attractive curriculum includes such subjects as dental radiography, business office analysis, appointments, collections and many others.

This seems extremely worth while. Many training, post-graduate and refresher courses are given for the dentist but very few for the dental assistant. Considering how important the

assistant is to the dentist these days—it is a part of good business to have the assistant take a refresher course and will make for renewed efficiency.—III. D Jour.

University of Washington

Appropriations for the University of Washington School of Medicine and Dentistry are as follows: \$3,250,000 re-appropriated which assures completion of the Medical and Dental Building, which first unit will be the Dental School building; \$2,251,357 appropriated for salaries, wages and operations for the schools of Medicine and Dentistry for the next two years. \$4,500,000 allocated for completion of the balance of the Medical-Dental building program.

Dental Briefs from American Dental Association

A total of 2,666 new dentists were graduated in the United States last year, approximately 50 per cent more than the pre-war average due to accelerated schedules adopted by dental schools during the war.

Preliminary studies indicate that topical applications of sodium fluoride may reduce dental decay among children as much as 40 per cent according to reports of dental researchers to the American Dental Association.

Approximately 95% of the American people suffer from dental ailments yet not more than one-fourth of them report to their dentist for annual treatment.

Americans through lack of proper dental care have accumulated nearly 600,000,000 unfilled cavities in their teeth.

Nearly every person today should have artificial dentures immediately after he has had his natural teeth extracted according to Dr. Frank C. Hughes, professor of prosthetic dentistry at Indiana University.

Excessive consumption of refined sugar is one of the major factors in dental decay according to research scientists.

Essay Contest to be held in Norway on Causes of Caries

The Norwegian Association for the Care of the Teeth has offered a prize for the best essay

on the causes for the decline of dental caries in Norway during the war.

Extensive studies on dental caries were possible in Norway during the German occupation because of the careful measurements of the restricted food supplies and because of the forced changes in diet habits.

Youth Day Program at Chicago

On April 15 the Chicago Dental Society arranged a program for selected senior boys and junior college men at the Stevens Hotel. Members of the Society sponsored students and purchased their dinner tickets, the idea being to interest these young men in dentistry.

The program started at two o'clock with a visit to one of Chicago's three dental schools where the guests observed classroom instruction, laboratory activities and actually saw advanced dental students engaged in the dental care of patients. The guests were taken to the hotel by bus where entertainment was provided during the dinner hour, following which Dr. Timmons, Dean of Temple University, School of Dentistry, discussed from a guidance point of view various aspects of a dental career as they relate to the individual dentist and to society as a whole.

Penicillin and Streptomycin Prescriptions

Penicillin and streptomycin may no longer be sold to the general public except by individual prescription from a physician, dentist or veterinary surgeon.

The only exception in the new regulations, issued under the Food and Drugs Act, is for the sale of penicillin and its salts for oral use when they contain not more than 3,000 International Units per dose. The ban on sales except by prescription applies to salts of penicillin and compounds of streptomycin as well as to the basic product.

Health department officers explained that penicillin is believed not to be injurious in itself, but it can be used in a way which may be injurious to the user if it is not administered under a doctor's control. Taken in the wrong way or at the wrong time it may not only fail to cure but the patient may develop an immunity so that the drug, even when

properly handled, will fail to be effective. Streptomycin is still in the experimental stage.

U.S.A. National Health Act of 1947—S. 545 (Taft Bill)

SUMMARY OF THE BILL AS AFFECTING DENTISTRY

Purpose: "To coordinate the health functions of the Federal Government in a single agency to amend the Public Health Service Act for the following purposes: To expand the activities of the Public Health Service; to promote and encourage medical and dental research in the National Institute of Health and through grants-in-aid to the States; to construct in the National Institute of Health a dental research institute, and for other purposes."

Dental Care Survey: Authorizes appropriation of \$1,000,000 for State surveys.

Dental Care Services: Authorizes the appropriation of funds ranging from \$8,000,000 for the first year to \$20,000,000 for the fourth year for matched differential grants to States on the basis of need according to a formula.

A State-wide program shall be set forth calculated to provide within five years:

a. Periodic examination of the teeth of all children in the elementary and secondary grades of the public and non-public schools in the State; and to provide for the dental care and treatment of dental diseases and dental defects, including prophylaxis, filling, x-ray, extraction, and related care, other than straightening, of the teeth of those children in the elementary and secondary grades of public and non-public schools of the State who, and whose family or guardian, have insufficient income to pay for the whole cost of such services. May provide for furnishing such services by means of payments by the State to non-profit voluntary dental care funds.

b. Dental care for families and individuals in the State having insufficient income to pay the whole cost of such service may be included at the option of the State.

c. May include payments to dentists practising in areas which, without such payment, would be unable to attract a practising dentist.

d. May provide for the training of per-

sonnel for State and local public health work in dentistry.

Must be based on a State-wide inventory of existing dental care and must be furnished without discrimination to all persons unable to pay in full.

Provision for such reports by State agency as required.

Provision for review and modification of State plan by State agency when necessary.

Provides for the establishment of a National Institute of Dental Research as a division in the National Institute of Dental Research as a division in the National Institute of Health which will function in cooperation with the National Dental Advisory Council. An appropriation of \$2,000,000 for erection and equipment of a suitable building is authorized. Appropriations are also authorized for grant-in-aid for dental research and training.

Editorial, "On the Wrong Track," *Christian Science Monitor* 39:13 January 30, 1947 per Public Health Economics.

Review of UNRRA, Health Division

For UNRRA's entire period of active operations lasting about three years, the total budget amounts to approximately 3 billion 7 hundred million dollars. When the Administration closes its books next year it is estimated that its health work will account for close to 168 million dollars. The largest portion of this amount, or about 146 million dollars, will have been spent for procurement and shipment of medical and sanitation supplies. By June 30, 1946, 105,000 tons of sera and vaccines, chemicals and drugs, hospital equipment, and laboratory supplies had already been dispatched, and about an equal amount was still to go forward.

The maximum annual expenditure of UNRRA for health is that for 1946, estimated at about 14 million dollars for the activities of the Health Division plus 68 million dollars for the procurement and shipment of medical and sanitation supplies. This gives an estimated sum of 82 million dollars for health, medicine, and sanitation during that year.

IN MEMORIAM

Frank Ernest Bennett, of St. Thomas, Ontario, aged 72, died March 19, following a lengthy illness. He was a lover of flowers and gave up his practice of dentistry in 1927 to follow his hobby. He was a former president of the Canadian Gladiolus Society and the American Gladiolus Society, also Past President of the Canadian Rose Society.

He was a former chairman of the St. Thomas Board of Education and a member of Talbot Lodge, 546, A.F. and A.M., also a member of First United Church.

Dr. Bennett is survived by three sons and one daughter, also one sister.

Elmer F. Schmeltz, of Simcoe, Ontario, aged 33, died suddenly on March 11 as the result of a heart attack. He was graduated from the Royal College of Dental Surgeons of Ontario in 1943 and had practised in Simcoe for the past three years.

He was treasurer of the Simcoe Kinsmen Club and a member of St. James United Church.

Dr. Schmeltz is survived by his widow, one daughter, his parents and one sister.

James Wesley Ault, of Prescott, Ontario, died on April 10 at Ventnor, Ontario at the age of 73. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1911 and began practice immediately in Prescott where he continued until his death. He was a member of the Masonic Order and the Oddfellows.

William Henry Galloway, of Blenheim, Ontario, died on April 16 at the age of 53. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1922 and began practice in Blenheim where he continued until his death.

He was secretary of the Blenheim Rotary Club from 1929 to 1940.

Réactions Pulpaire aux Ciments-Silicates

par H. A. ZANDER, M.S., D.D.S., Boston.

traduit par Louis Bernier, B.A., D.D.S., L.C.D.

(suite)

Etudes Cliniques

211 dents furent restaurées avec des silicates pour étudier les variations et la fréquence de mortalité de la pulpe avec ce matériel. Dans chaque cas, l'âge du patient, la durée des obturations en bouche, la grandeur approximative des caries et la réaction pulpaire faite au "pulp tester" furent notés. Le "pulp tester" employé pour cette expérience était arbitrairement gradué de 1 à 14 selon le montant d'électricité requis pour obtenir une réponse. La plupart des patients "servant à" cette expérience étaient des étudiants en chirurgie dentaire. Il semblait plus facile d'obtenir avec ces dernières des réponses exactes tant pour la date de l'obturation que pour la réaction au "pulp tester". Il est important, pour déterminer la réaction de la pulpe, d'évaluer auparavant par un test préliminaire, la réaction du tissu gingival et de la dent saine. Cela fut fait et tous les patients purent discerner facilement les deux réactions. Ainsi, le maximum d'irritabilité d'une pulpe normale fut enregistré sur chaque patient. Les dents antérieures répondirent généralement entre 2 et 5, mais demeurant cependant dans une variante de 1 degré pour chaque cas. Ensuite les dents obturées de ciment-silicate furent soumises à l'expérience et la lecture suivante fut enregistrée. Si, sur la dent obturée de silicate, on notait une variante de 2 degrés de plus que sur la dent contrôle, on concluait à une réaction pulpaire défavorable. Si, au "pulp tester",

on obtenait aucune réponse à 14, on déclarait cette dent morte.

Le tableau No 2 fait voir le rapport qu'il y a entre l'âge du patient, l'étendue de l'obturation et l'âge ou la durée de l'obturation avec le nombre de dents ne répondant pas ou accusant une grande diminution au test de "vitalité". De ce tableau, il ressort que le plus grand nombre de dents mortes appartient au groupe le plus jeune (d'âge).

Le graphique ci-dessous indiquera la relation qui existe entre la grandeur approximative des obturations et le nombre de dents mortes ou ayant un degré d'irritabilité fort augmenté.

Le tableau No 2 démontre que les dents ayant de petites obturations sont encore vitales et sur les obturations moyennes, on note 0.9% de pulpes mortes. Ceci contraste avec le résultat de 5.6% obtenu pour les grandes obturations de silicate. La même tendance est indiquée dans la colonne (Fig. 7) montrant les dents qui ont le plus haut maximum d'irritabilité. D'après ces statistiques, il est évident que plus la cavité est grande, plus il y a de danger d'irriter la pulpe. Quant à la relation de la durée d'une obturation en bouche au nombre de dents non-vitales ou dont l'irritabilité est bien accrue (tableau 2), il est prouvé que sur 35 dents obturées avec des silicates depuis moins de 3 mois, 3 étaient mortes et 8 avaient un degré d'irritabilité plus grand. Aucune des 126 dents obturées de silicate, pour plus de trois ans, n'était morte. Ces

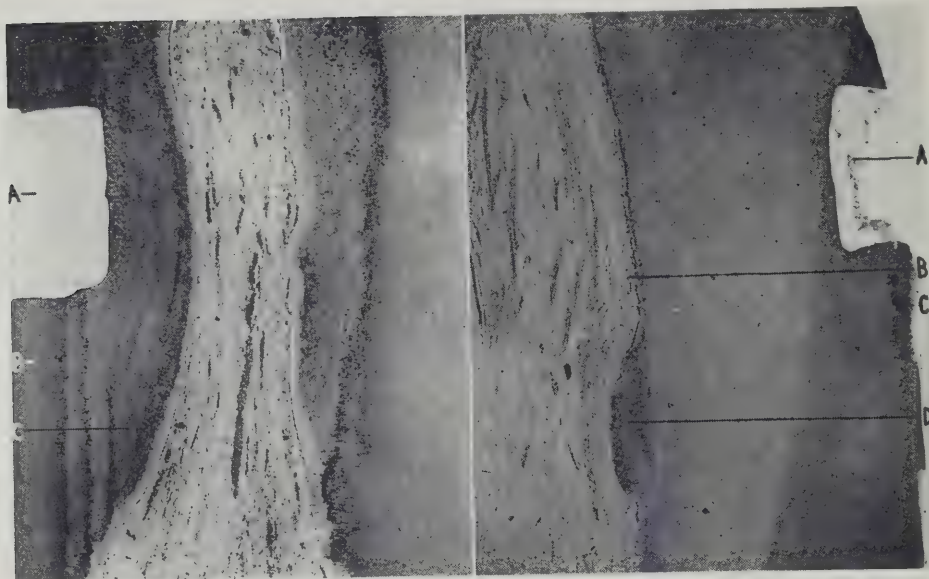


FIG. 5

Gauche: Dent 31, Incisive centrale inférieure droite érodée (A) Cavité. (B) Dentine. (C) Dentine secondaire. La cavité dans la partie érodée fut obturée de silicate pendant six semaines avant l'extraction. La pulpe est normale. Droite: Dent: 33. Une canine supérieure droite avec carie au tiers gingival. (A) Cavité (B) Inflammation pulpaire. (C) Carie. (D) Dentine secondaire. La cavité s'étendant dans la dentine cariée et saine, fut obturée de silicate pendant cinq semaines. Il y a une réaction inflammatoire adjacente aux canalicules dentinaires conduisant à la partie de la cavité qui fut ouverte dans la dentine saine. Il n'y a pas d'inflammation dans la partie adjacente à la dentine secondaire formée par la présence de la cavité.

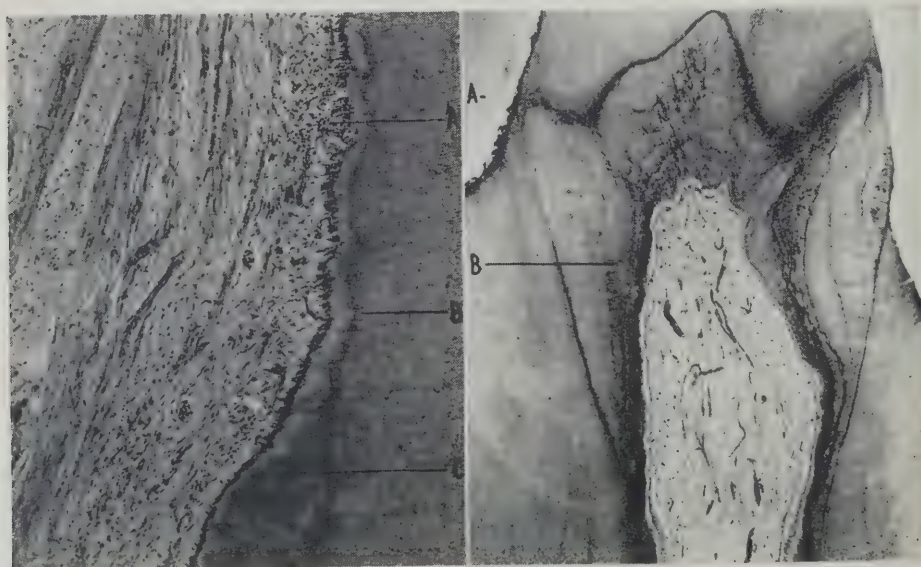


FIG. 6

Gauche: Fort grossissement de cette partie de la pulpe inflammée dans Fig. 5. (A) Région de l'hémorragie et d'infiltration cellulaire. (B) Dentine (C) Dentine irrégulière. Droite: Dent 42, canine gauche supérieure avec cavités mésiale et distale obturées de silicate pendant 10 ans. (A) Cavité; (B) Dentine secondaire. La pulpe est normale.

statistiques prouvent clairement que, si une obturation tue la pulpe, elle le fera avant les premiers trois mois. Ainsi, il est probable que la moyenne des pulpes nécrosées sous des obturations de silicate, compilées dans ce travail, est peu nombreuse. Et ceci parce que ce tableau ne tient pas compte des dents qui réagissant peu après avoir été obturées de silicate, furent extraites ou reçurent des traitements de canaux.

Sur les 211 dents soumises à l'expérience de cette étude, 5 ou 2.3% étaient mortes, et 34 ou 16.1% avaient un degré d'irritabilité plus élevé que les dents de contrôle.

Commentaires

Il est évident, d'après les expériences décrites ci-dessus, que le silicate a sur la pulpe un effet néfaste. Ceci est suffisamment démontré dans les tableaux 1 et 3 (gauche). Il est évident que ce dommage doit être attribué aux propriétés irritantes du silicate plutôt, qu'aux méthodes employées dans la préparation des cavités, parce que des cavités semblables obturées d'oxyde de zinc-eugénol ne lésèrent aucunement la pulpe.

Malgré certaines différences dans la gravité, la nature des réactions pulpaires était semblable dans toutes les dents saines. La couche d'odontoblastes correspondant aux canalicules en contact avec la cavité accuse une dégénérescence dans presque tous les cas. De même, on remarqua une infiltration cellulaire variant en gravité, depuis une légère réaction jusqu'à la formation d'abcès ou la mort de la pulpe. L'inflammation dépend dans une certaine mesure de la durée des silicates en bouche. Les leucocytes polymorphonucléaires sont nombreux dans la pulpe des dents des patients 2, 3 et 7. Dans les autres cas, les monocytes et les cellules du plasma dominant. La pulpe présente des cas d'inflammation aiguë non spécifique.

Une question se pose à savoir si l'inflammation causera une destruction locale et finalement la mort totale de la pulpe ou des changements prolifératifs.

La dentine secondaire peut cependant isoler l'agent irritant ou l'inflammation peut disparaître si l'agent irritant dis-

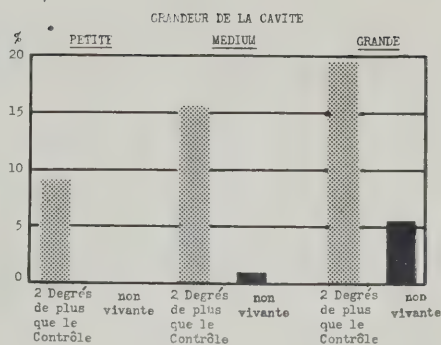


FIG. 7

Rélation de la grandeur approximative des obturations avec le pourcentage de dents qui ne répondent pas ou accusent une augmentation marquée d'irritabilité au test de vitalité.

paraît. Dans un des cas (Fig. 3, gauche) il y a nécrose, après la onzième semaine. Les dents 29 et 30 auraient probablement eu le même sort si l'expérience n'avait été terminée à ce moment. Histologiquement parlant, le pronostic s'appliquerait à plusieurs autres dents. Cependant dans les cavités un peu profondes, il y a présence de fibroblastes et la pulpe a pu survivre. Malgré cela on peut dire sans crainte que les silicates sont de puissants irritants de la pulpe.

L'étude histologique montre qu'il y a des réactions différentes sur chaque patient ayant été soumis à l'expérience.

Les réactions les plus violentes furent remarquées chez les patients les plus jeunes, tandis que les moins violentes, chez les plus âgés. Cette opinion fut concrétisée par l'expérience clinique qui prouva que les plus jeunes avaient le plus grand nombre de dents mortes. (Fig. 2).

Il y a deux constatations qui sont importantes pour le praticien. La première, c'est que les cavités profondes faites dans des dents saines et obturées de silicates donnent les réactions pulpaires les plus violentes. La seconde, c'est qu'il n'y a que de légères réactions lorsqu'il y a une couche assez épaisse de dentine entre la pulpe et la cavité.

Cependant, en pratique, il est rare que nous ayons à étendre une cavité aussi profondément dans la dentine saine, comme dans cette expérience. Il faut tout de

TABLEAU 2.—*Rapports de l'âge des patients, du volume de l'obturation et de la durée de l'obturation avec les réactions pulpaires de 211 dents obturées en ciment-silicate.*

Réaction Pulpaire	Age du patient			Volume de l'obturation			Durée de l'obturation			
	Moins de 19 ans	20-26 ans	27 ans et plus	Petite	Moyenne	Grosse	Moins de 3 mois	3 mois à 1 an	1 an à 3 ans	3 ans ou plus
Identique au contrôle *	43	112	17	30	89	53	24	21	19	108
2 unités ou plus haut que le contrôle†	9	17	8	3	17	14	8	5	3	18
Non vitales ‡	3	1	1		1	4	3	1	1	

* Indique que la réaction de la dent au "pulp tester" est la même que celle des dents "contrôle".

† Indique que la réaction de la dent au "pulp tester" est à un niveau plus élevé que celle des dents "contrôle", mais que les dents sont encore vivantes.

‡ Indique qu'il n'y a aucune réaction au "pulp tester", à 14, niveau le plus élevé.

même étendre la cavité dans les parties saines. Partant des données décrites plus haut, il résulte que l'extension pour la prévention ou la rétention devrait être pratiquée avec ménagement et de telles extensions dans la dentine saine devraient être aussi peu profondes que possible. La partie clinique de cette étude soutient cette thèse, puisque les dents ayant de petites obturations étaient vivantes, tandis que 5.6 pour cent de toutes les dents, ayant de grandes obturations, sont mortes.

Le fait que certaines pulpes soient gravement malades ou mortes sous l'effet des ciments-silicates et que d'autres restent saines, est expliqué dans l'étude histopathologique des dents cariées ou érodées. Dans ces dernières, la pulpe a eu le temps de constituer une couche protectrice de dentine secondaire, à travers laquelle apparemment, ne peut pénétrer le facteur irritant associé aux silicates. Fig. 5 (gauche) et 6 (droite). Ceci est vrai même pour les cavités profondes. D'un autre côté, au cours de l'examen de dents saines, les dents n'avaient pas encore formé de dentine secondaire. Cette absence était toujours constatée de façon non équivoque. Si une cavité est préparée dans une dent non cariée et si un amalgame, une incrustation ou une aurification y est placée, la dentine secondaire s'y forme automatiquement en moins de

quelques semaines. Ce dépôt ne se produit probablement pas après l'insertion d'un silicate. Il s'ensuit logiquement que seules sont sans danger possible pour la pulpe, les obturations de silicate ne nécessitant pas une trop grande destruction des canalicules dentinaires sains. Ceci est clairement démontré dans les tableaux 5 (droit) et 6 (gauche), où l'on ne constate aucune réaction dans la pulpe avoisinant la dentine secondaire stimulée par le progrès de la carie, mais qui montre une inflammation décisive vis-à-vis les canalicules dentinaires sains en contact avec l'obturation de silicate.

L'importance de la dentine secondaire par la protection qu'elle apporte à la pulpe est prouvée par des études cliniques. Les dents qui demeurèrent saines avec de grandes obturations furent celles qui, au début, avaient de graves caries ou érosions avec des surfaces de dentine secondaire correspondantes. Les dents vivantes semblaient être celles dont les extensions faites dans la dentine saine étaient peu profondes. Dans ces deux cas l'effet irritant du silicate serait négligeable.

Résumé

Les cas de maladies pulpaires graves dues à des obturations de silicate s'opposent au fait que des millions de dents

humaines ont de telles obturations sans mauvais effets apparents. Pour tirer cette contradiction au clair, on a poursuivi des études histopathologiques et cliniques.

Des cavités préparées dans 30 dents saines et dans 14 dents cariées ou érodées furent obturées de silicate. Après différentes périodes, ces dents furent extraites et préparées pour l'étude histologique.

Deux cent onze dents obturées de silicate furent soumises au "pulp tester". On établit la relation entre les résultats obtenus et l'âge des patients, la durée de l'obturation, sa grosseur. De ces études on tira les conclusions suivantes:

10.—Le ciment-silicate est un puissant irritant de la pulpe.

20.—La formation de dentine secondaire ou une épaisse couche de dentine primaire tend à amoindrir cette irritation.

30.—Les pulpes de personnes jeunes réagissent plus sérieusement au silicate que celles de personnes plus âgées.

De ces observations, les procédés suivants sont suggérés pour la pratique:

10.—Les extensions pratiquées en vue de la prévention devraient être faites avec le minimum de pénétration dans la dentine.

20.—Une base, telle que l'oxyde de zinc-eugénol, devrait être employée surtout chez les jeunes patients.—416 *Huntingdon, Boston.*

STATISTIQUES SUR LE NOMBRE DES DENTISTES AU CANADA

(Rapports des régistres de chaque province au 31 décembre 1946.)

Province	Nombre de dentistes rapporté au cours de l'année de 1946.								Augmen- tation ou dé- croisse- ment	Proportion en rapport de la po- pulation
	Hom- mes	Femmes	Armée	Total	Morta- lités	Démis- sions	Retrai- tes	Addi- tions	1938	Par tête de population
Ile du Prince Edouard	27	0	1	28	0	1	0	0	-2	1/3286
Nouvelle- Ecosse	179	1	0	180	1	1	1	4	+11	1/3450
Nouveau- Brunswick	110	0	4	114	5	0	3	9	+4	1/4105
Québec	1026	5	10	1041	9	8	1	44	+167	1/3421
Ontario	2022	22	37	2081	23	7	45	49	+149	1/1924
Manitoba	242	1	1	244	1	2	1	20	-7	1/3016
Saskat- chewan	193	1	1	195	4	0	2	14	-15	1/4333
Alberta	262	2	0	264	3	5	2	11	+28	1/3128
Colombie Britannique	451	3	1	455	5	12	5	121	+93	1/2086
TOTAUX	4512	35	55	4602	51	36	60	272		1/2633

N.B. (1) Les chiffres de la population sont ceux fournis par le Bureau Fédéral des Statistiques par l'année 1945

(2) Les chiffres de l'augmentation et du décroissement sont en rapport avec le nombre des dentistes en 1938, puisque les déplacements occasionnés par la guerre ne permettaient pas des proportions justes.

"Les Progrès de l'Endodontie dans la Province de Québec"¹⁾

par ERNEST CHARRON D.D.S.

J'apprécie à sa juste valeur le privilège d'adresser la parole devant les membres de l'American Society of Endodontia, qui groupe tant de dentistes distingués.

On m'a demandé d'exposer les buts et les progrès de l'Endodontie dans la Province de Québec. Je suis des plus heureux de traiter de ce sujet devant cette assemblée, parce que l'occasion m'est offerte de donner crédit à qui de droit.

Devrais-je rappeler, qu'en 1910, à une assemblée tenue à l'Université McGill, à Montréal, le docteur William Hunter déclarait qu'un grand nombre de maladies organiques était attribuable à des restaurations dentaires fautives. Des centaines de dents ont été sacrifiées à la suite de cet énoncé.

Les foyers infectieux avaient alors atteint les proportions d'une épidémie, à un degré tel que l'attention de la profession médicale fut attirée sur ce point. Nous connaissons tous les recherches merveilleuses du docteur Weston A. Price de Cleveland, Ohio, sur les "Infections Dentaires, Buccales et Organiques."

La profession dentaire et le public en général devinrent, pour ainsi dire, à tel point imbus de cette idée d'infection focale que les médecins, les dentistes et les patients devinrent prudents à l'extrême. En conséquence, tous étaient en faveur des extractions dans tous les cas douteux, même quand un traitement conservateur aurait pu être entrepris avec succès.

Des travaux de recherche d'une grande envergure furent entrepris sur cette question, au Canada et surtout aux États-Unis.

Plusieurs chercheurs consacrèrent des années à l'étude de l'infection focale. Les résultats de leurs efforts permirent à un groupe d'hommes de formuler une technique nouvelle pour les traitements de canaux.

Nous pouvons affirmer, aujourd'hui,

que les conditions étalées par le docteur Hunter, il y a trente-cinq ans, peuvent être corrigées, grâce à l'aide incalculable fournie par la radiographie.

Les méthodes nouvelles pour le traitement et la conservation des dents ont fait des progrès rapides et sont employées partout depuis la fondation de l'American Association of Endodontists, dans cette grande ville de Chicago, en 1944.

Les dentistes de Montréal furent prompts à suivre l'exemple de leurs confrères américains. Dans la même année, ils organisèrent la Société d'Endodontie de Montréal. Les fondateurs, les docteurs A. D. Richardson, Marcel Archambault et H. H. Pearson, dont l'initiative a été d'un grand bénéfice pour la profession et le public, reconnaîtront que l'inspirateur de leur mouvement a été notre bon ami le docteur Sommer. Ce dernier fut leur professeur à un cours de perfectionnement à l'Université du Michigan, à Ann Arbor.

Les buts de la Société sont:

- a) promouvoir les échanges d'idées sur les méthodes de la conservation de la pulpe et des traitements de canaux.
- b) encourager les recherches de clinique et de laboratoire parmi ses membres.
- c) maintenir un niveau élevé dans la pratique de l'endodontie au sein de la profession dentaire, en vulgarisant cette science par des conférences, des cliniques et des publications, etc.

Il est intéressant de noter que la société ne considère pas l'Endodontie comme une spécialité. Ses membres, toutefois, peuvent se consacrer uniquement à la pratique de cette branche de la dentisterie. Son but principal est de familiariser tout praticien avec la science et la technique de l'Endodontie.

La Société d'Endodontie de Montréal admet seulement un nombre restreint de

1) Communication présentée devant les membres de l'American Society of Endodontia, au Mid Winter Chicago Dental Society Meeting, à Chicago, jeudi, le 13 février, 1947.

membres à la fois, de façon à donner à chacun une attention particulière qui lui permette d'acquérir une connaissance théorique et pratique suffisante. Quand un groupe a été entraîné, ses membres deviennent démonstrateurs, conférenciers, cliniciens, dans cette matière, aux Congrès et aux réunions dentaires. Ainsi la science de l'Endodontie fait boule de neige.

Le travail de la Société apparaît dans ses règlements, qui exigent la tenue de sept réunions par année. Les membres doivent assister à au moins cinq d'entre elles.

Quelle est l'attitude des Universités de Montréal et de McGill vis-à-vis l'Endodontie?

La Faculté de Chirurgie dentaire de l'Université de Montréal, établie en 1904, a été complètement réorganisée en janvier 1944. Tout le curriculum a été refait et une attention spéciale a été accordée à l'enseignement des sciences biologiques. Les membres du personnel enseignant de la faculté furent encouragés à suivre des cours gradués et post-gradués dans les écoles dentaires américaines. Permettez-nous à cette occasion d'exprimer ma gratitude aux facultés dentaires des Etats-Unis, dont l'appui nous a été tellement favorable.

Nous devons remercier aussi la fondation W. R. Kellogg, dont l'assistance financière nous a aidés à développer nos cours gradués et post-gradués. Un de ces cours traite d'Endodontie. Ces cours sont offerts à tous les membres de la profession au Canada et aux Etats-Unis et sont donnés en français et en anglais.

Je crois que c'est Sir William Osler qui inscrivait sur la première page d'un cahier de note d'étudiants, à son premier cours de médecine publique à l'Hôpital Général de Montréal, cette citation de Freud: "Le seul savoir utile à l'homme doit vivre et grandir pour se transformer dans le domaine pratique. Tout le reste est poussière sur le cerveau ou sèche comme la pluie sur les pierres."

Nous sommes de cet avis et nous avons toujours tenté de rendre notre enseignement théorique et pratique aussi effectif

qu'il est humainement possible de le faire.

L'enseignement des sciences biologiques, à notre faculté est donné à la faculté de Médecine et à la faculté des Sciences, selon le cas. Cette collaboration nous est précieuse. Nos étudiants, loin d'être traités en "parents pauvres" sont sur un pied d'égalité avec les élèves de ces facultés. Cette coopération est avantageuse pour l'enseignement et pour l'esprit de famille de notre Université. Devrais-je ajouter qu'à notre hôpital, les personnels médical et dentaire sont sur un pied d'égalité.

Depuis notre réorganisation, en 1944, l'enseignement clinique, en 3^e et 4^e années, se donne par groupes d'élèves. Cette formule veut presque dire un enseignement individuel. Nous procédons de la façon suivante: sur 60 étudiants de chaque année, nous en prenons 10 dans chaque classe (ce qui forme des comités de 20 élèves) et chaque groupe passe un mois dans chacun des sept services, à tour de rôle. Par exemple, chaque élève, en plus de son stage en pré-clinique, consacre un mois en Endodontie exclusivement, dans ses deux dernières années. Durant les deux derniers mois de sa dernière année, tout étudiant travaille dans un cabinet modèle, comme il le fera dans son bureau particulier.

En 1944, notre faculté organisait sur une base scientifique, un service d'Endodontie comme une subdivision du Service de Dentisterie Opératoire.

Le chef de ce service partit se perfectionner sous la direction efficace du docteur Sommer. Dès ce moment, nous avons commencé à donner à nos élèves, des notions poussées d'histologie, de bactériologie, de pathologie, de matière médicale et de pharmacologie et nous avons commencé l'enseignement par groupes. La prochaine initiative au programme est l'organisation de notre section de recherches.

La Société d'Endodontie de Montréal a ses quartiers-généraux à notre faculté et nous mettons à sa disposition tout ce dont elle a besoin; l'Université McGill coopère aussi activement avec notre Société. Ce mois dernier, les finissants ont consacré

deux semaines complètes à l'étude de l'Endodontie. Le personnel enseignant et les autorités des facultés dentaires des deux Universités saisissent toute l'importance de cette nouvelle science et de ses techniques nouvelles; vous avez fait progresser cette science avec enthousiasme, Messieurs, et maintenant elle a sa place méritée dans un programme d'études modernes.

MIGRATION DES DENTISTES CANADIENS DURANT 1946

DE	A	I.P.E.	N.E.	N.B.	P.Q.	Ont.	Man.	Sask.	Alta.	C.B.	E.U.	Terre Neuve	Australie
Ile du P.-Edouard													
Nouvelle-Ecosse												1	
Nouveau-Brunswick					1	1						1 incertain	
Québec			1										
Ontario			2	1			16	8	4	12	1		1
Manitoba										1			
Saskatchewan									1	1			
Alberta						1					1		
Colombie-Britannique						2					3		

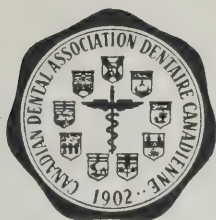
NOMBRE DE DENTISTES A L'EMPLOI DES SERVICES DE SANTE

	I.P.E.	N.E.	N.B.	P.Q.	Ont.	Man.	Sask.	Alta.	C.B.	Totaux
Ecoles Dentaires (Personnel enseignant)										
plein-temps		1		6	9			2		18
demi-temps				62	13			4		79
Service Hospitalier					16		1	6	2	25
plein-temps					3		1	0	0	4
demi-temps										
Services dentaires scolaires										
plein-temps		1	1	10	10	1	1	3	10	37
demi-temps		1	1		45	4	2	1		54
Services de Santé Publique										
plein-temps				10	4	1		1		16
demi-temps				56						56

NOMBRE DE SPECIALISTES DANS LES DIVERSES PROVINCES

(Comprenant seulement ceux qui consacrent tout leur temps à cette spécialité)

Province	I.P.E.	N.E.	N.B.	P.Q.	Ont.	Man.	Sask.	Alta.	C.B.	Totaux
Chirurgie et Exodontie		1		2	22	2		1	2	30
Orthodontie		1		13	22	3	2	1	3	45
Périodontie				2	10	1		1	3	17
Pédodontie					1				2	3
TOTAUX		2		17	55	6	2	3	10	95



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D.

ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.

397 est Boul. S.-Joseph, Montréal

UN EVENEMENT DANS NOTRE VIE PROFESSIONNELLE

Un fait inusité vient de se produire au sein de la profession dentaire canadienne-française. Un des nôtres vient de publier un volume de vulgarisation scientifique, qui traite de la maladie, la plus répandue dans le monde, la carie dentaire, et des moyens faciles de la prévenir.

Ce livre arrive à son heure (un peu tardive, peut être) car, durant ces dernières années, notre génération a assisté à l'éclosion d'oeuvres destinées au grand public traitant de problèmes de science pure et appliquée. La physique, la chimie, la biologie, la médecine et que sais-je, sont venues, à tour de rôle, exposer à l'homme de la rue, en langage simple et concret, les résultats d'expériences et de travaux bien élaborés et bien arides. Seule la science dentaire restait dans sa tour d'ivoire. A cause de cette humilité ou de ce désintéressement, les notions les plus fantaisistes et les plus saugrenues avaient cours dans tous les milieux au sujet de la carie dentaire. Le docteur Charles-Auguste Durand, de Montréal, veut remédier à cette lacune en faisant éditer son traité intitulé "Comment prévenir la carie dentaire".

Ce volume, de présentation fraîche et attrayante, n'est pas un travail scientifique, c'est un exposé de notions simples, telles que comprises aujourd'hui par le dentiste, énoncées pour ses patients. Malgré son titre, ce travail touche à plusieurs



M. le docteur Charles-Auguste Durand

questions qui sont du domaine de la réparation des dégâts dûs à la carie, plutôt que du domaine de la prévention elle-même; à peu près toutes les spécialités de la profession dentaire y sont effleurées. Mais toutes ces questions sont des sujets pratiques, que le praticien expose, tous les jours, à ses clients.

Dans la première partie de son volume, le docteur Durand éveille l'attention de la future mère sur l'importance des dents de l'enfant, qui vit en elle. Il lui conseille les visites au dentiste et au médecin, qui la dirigeront vers une bonne diète et une hygiène bien comprise. "Un enfant est comme une belle plante, dit-il en s'adressant aux jeunes mères, si on lui procure une culture soignée, on en récoltera de bons fruits."

L'auteur, dans la deuxième partie, explique le mécanisme de l'éruption des dents, chez l'enfant, et parle des avan-

tages à maintenir ces dents dans leur position normale.

Le docteur Durand a droit aux félicitations de ses confrères pour les efforts qu'il s'est imposés, afin de réaliser d'une façon aussi réussie, son volume: "Comment prévenir la carie dentaire".

L'auteur, en ces temps où les dentistes sont bien pris à leurs cabinets, a beaucoup de mérite d'avoir entrepris et mené à bien un travail, qui est de nature à faire l'éducation dentaire de notre population et à aider ses confrères dans l'accomplissement de leurs fonctions.

GERARD DE MONTIGNY

CHEZ NOUS ET AILLEURS

Journée d'Etude de la Société Dentaire de Montréal

A l'hôtel Windsor de Montréal, vendredi, le 6 juin 1947, aura lieu la journée d'étude annuelle de la Société Dentaire de Montréal.

Le programme de cette réunion est le suivant:

1) "Incrustations", conférence et clinique présentées par le docteur E. Grevatt, de Montclare, New Jersey.

2) "Prothèse immédiate", clinique par le docteur Victorien Dubé, professeur de prothèse à la Faculté de Chirurgie Dentaire de l'Université de Montréal, assisté du docteur Gérard de Montigny, qui est chargé de la partie chirurgicale de cette clinique.

Réunion des Confrères de la Promotion "1927" à la Journée d'Etude de la Société Dentaire de Montréal

Les dentistes diplômés de l'Université de Montréal en 1927 profiteront de la Journée d'étude de la Société Dentaire de Montréal pour tenir une réunion-conventum, à l'Hotel Windsor, vendredi, le 6 juin 1947.

Le docteur J. Gaston Lajoie, 5305 Chemin de la Reine Marie, Montréal, est chargé de cette organisation.

La Province de Québec et la Cotisation à l'A.D.C.

A une réunion récente, le Bureau des Gouverneurs a décidé d'augmenter la cotisation des membres en règle à l'Association Dentaire Canadienne à \$8.00 par année, à condition que les autres provinces augmentent aussi leur cotisation à au moins le même montant.

L'Impôt sur le revenu

La Division de l'impôt sur le Revenu du Ministère du Revenu National, sous l'inspiration de son nouveau sous-ministre, F. H. Brown, a décidé de reviser le statut des citoyens, ayant de gros revenus, mais dont le bilan financier est difficile à établir, comme les courtiers, les opérateurs de gobe-sous, les médecins et les autres professionnels. Sans commentaires.

Réunion de l'Exécutif de l'A.D.C. tenue à la fin de février

Les résolutions suivantes ont été passées par l'Exécutif de l'Association Dentaire Canadienne, lors d'une assemblée tenue à Toronto, les 24 et 25 février, 1947:

1) L'A.D.C. participera officiellement au Congrès conjoint de l'Association Dentaire Américaine et de la Fédération Dentaire Internationale, qui aura lieu à Bos-

ton, du 4 au 8 août prochains. Les docteurs Crowe, président de l'A.D.C., Carver, vice-président et Charron, président de Comité des Relations Internationales, seront les délégués officiels.

2) Le Congrès national de l'A.D.C., en juin 1948, aura lieu au Manoir Riche-lieu, à Murray Bay, à l'invitation du Col-lège des Chirurgiens-Dentistes de la Pro-vince de Québec et de la Société de Sto-matologie de Québec.

3) Le docteur H. W. Eaton, d'Halifax, président du Comité du Programme, pré-sente un rapport intérimaire sur le Con-grès National de 1947, qui aura lieu au début de l'été, à Digby.

4) Le docteur George L. Cameron, exposa certains aspects de l'embauchage de dentistes par le gouvernement fédé-ral. Ces considérations furent discutées et référées au Comité des Services Den-taires.

5) Le docteur R. P. Lowery, président du Comité des Publications fit part de réformes financières et autres pour le Journal, mais pria le Comité de ne rien faire pour le moment.

6) Le docteur R. G. Agnew demanda l'appui de l'Association pour promouvoir l'échange de professeurs et d'étudiants entre la Chine et le Canada. L'Exécutif a prié le Comité des Relations Interna-tionales d'accorder son assistance à ce projet.

7) Des suggestions furent faites pour réunir bientôt les dentistes employés des unités sanitaires. Le principe de ce mouve-ment fut adopté et on espère trouver une aide pécuniaire de l'extérieur pour mener à bien ce projet.

8) Le docteur C. V. Fisk, de Toronto, est chargé de préparer des règlements pour l'administration du Mémorial de Guerre de l'Association.

TRAITEMENTS DENTAIRES DES AVIATEURS

par le groupe des recherches dentaires de l'U.S.A.F. (United States Air Forces)

On a souvent admis que les soins den-taires de la technique la plus moderne devaient éliminer les troubles dentaires à l'altitude. Il faut admettre aujourd'hui que la dentisterie actuelle n'est pas assez par-faite pour les supprimer. Nous n'avons pas encore les connaissances voulues. Quand nous aurons la solution des prob-lèmes qui se posent à propos des effets de l'altitude concernant les tissus den-taires, nous aurons fait un grand pas en avant dans nos connaissances sur la physiologie et la pathologie dentaires. Les soins dentaires aux aviateurs deviendront non seulement une partie de la pratique clinique, mais l'étude qu'elle exigera améliorera la pratique courante.

Tel est le résumé d'un long article sur les troubles dentaires qui se produisent chez les aviateurs, paru dans le *Journal of the American Dental Association*, 1er juillet 1946. Dans un vol, un pilote—en plus de l'effet émotionnel—est soumis à

trois facteurs de grande importance: 1) Modification de la pression atmosphé-rique. 2) Modification de la température. 3) Effets de la vitesse. Un organisme terrestre doit avoir des moyens de com-pensation. Cet article passe en revue les troubles dus à la déficience d'oxygène, aux gaz et à l'air internes (expansion in-testinale) aéro-otites, aéro-sinuites, etc. Les troubles dus à la décompression, les effets du froid (2° par 300 m. environ). Les effets de la force centrifuge. Enfin l'aérodontalgie.

Lorsqu'il ne s'agissait que de pilotes militaires, cette question n'intéressait que quelques médecins et physiologues des bases militaires.

Actuellement avec l'extension du trafic aérien civil, ce domaine concerne tous les cliniciens: troubles vulpaires, dysfonc-tion de l'articulation temporo-maxillaire, diminution de l'adhésion des dentiers, troubles gingivaux. En général, l'altitude

déclenche l'exacerbation d'un état chronique qui ne se manifestait pas au sol: développement de lésions périapicales, dissémination d'infections focales.

L'aérodontalgie a été étudiée sur des milliers de recrues pilotes, etc., grâce à la chambre de décompression et sur les innombrables aviateurs de combat. (Plusieurs observations *postmortem*.)

Sur 83,730 recrues passées à la chambre à décompression, 5% ont souffert de maux de dents. Lors d'essais à la chambre d'altitude sur 710 hommes, 114 ont demandé une descente prématurée dont un tiers pour maux dentaires.

La statistique militaire est inférieure à celle des recrues civiles par le fait de l'état dentaire meilleur des premiers et aussi par le désir qu'avaient ces jeunes soldats de ne pas être éliminés de l'U.S.A.F.

L'aérodontalgie ne peut pas être étudiée seulement par les expériences de la chambre à décompression. Dans le personnel volant entraîné, les cas de troubles dentaires sont beaucoup moins fréquents parce que beaucoup d'hommes ont été éliminés pour diverses raisons pendant leur entraînement. Cependant beaucoup de pilotes qualifiés ont souffert de troubles dentaires à un moment donné.

Quelques radiographies de cas ayant provoqué de très fortes douleurs à l'altitude décèlent des bulles d'air dans l'obturation des canaux radiculaires.

L'une en particulier présente, au sol, un vide entre le ciment d'une dent et l'obturation radiculaire avec une pâte antiseptique. La même dent radiographiée dans des conditions fort délicates à 12,000 mètres montre la projection d'une grande partie de la pâte au delà de l'apex. De nombreux cas similaires montrent l'expansion du volume d'air enfermé qui arrive souvent à vider complètement le canal radiculaire. Un sujet qui présentait une fistule a expulsé par cette dernière, à 9000 mètres d'altitude, toute la pâte qui obturait la racine. Aspect du périodonte; les expériences sont insuffisantes pour établir une affirmation, mais de nombreuses observations démontrent la fréquence des troubles gingivaux parmi le personnel *volant*. Sont-ils dus à la pratique, à la tension nerveuse, à l'usage de l'oxygène, à la diminution de la pression?

Enfin l'habitude de serrer ou de grincer les dents se retrouve chez la plupart des pilotes militaires, qu'ils soient au combat, en formation de manoeuvre ou à l'entraînement. Encore un cas qui provoque des troubles du périodonte et la perte d'obturations qu'un individu au sol n'aura pas à subir. Mais les troubles dentaires de l'aviateur ne sont pas plus fréquents que ceux des oreilles. C. B.

—(Hygiène et Médecine)

15 Mars 1947





"GULLS IN FLIGHT"

Photograph by A. V. POLLARD,
Associated Screen News, Limited,
Empress Hotel, Victoria, B.C.

*"There are lonely hearts to cherish
While the days are going by,
There are weary souls who perish
While the days are going by.
If a smile we can renew
As our journey we pursue,
Oh, the good we all may do,
While the days are going by."*

—GEORGE COOPER.

.....



ROBERT B. BELL, B.Sc., D.D.S.
Montreal, Quebec.

President Montreal Dental Club.
Graduate McGill University, B.Sc., 1926; D.D.S., 1928.
Treasurer Montreal Dental Club 1936-1944.
Lecturer, McGill University, in Dental Anatomy and
Office Procedure.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, JUNE, 1947

NO. 6

THE CLINICAL MANAGEMENT OF AMALGAM*

by E. CARL MILLER, D.D.S., E., Cleveland, Ohio, U.S.A.

THIS paper will deal with the latest available information in the clinical management of amalgam.

There may be differences of opinion in the technical procedure such as instrumentation, but there is a general understanding by those who have remarkable success with amalgam that desirable results may be expected if serious consideration is given to certain details. Sweeney¹ briefly suggests, "An ordinary degree of care in handling amalgam will in most cases convert a failure into a success."

Because of the confusion generally exhibited in the use of amalgam there is reason to believe that lack of confidence in the material can be attributed to its misuse. Certainly we cannot be proud of the usual unanatomical discoloured restoration. Hollenback² summarized this thought when he wrote,

"I wish to make a plea for the more extensive and intelligent use of amalgam. In spite of the almost unbelievable bad manner in which this material has been handled and the thorough prejudice which has existed against its use, it has saved more teeth than all other filling materials combined. It is interesting to speculate on the good that might have been done had it been intelligently and carefully used."

ECONOMICS

If amalgam stimulated post-graduate study comparable to other phases of dentistry, I am sure that there would be no need to suggest its more careful management. If restorations of unchanging character and beauty were to be the usual rather than the exception, our valuation of such fillings would seriously affect our operative procedures. If we are enthusiastic about any phase of dentistry it is not difficult to expect reasonable remuneration for service of high quality. Dentistry and especially operative dentistry, is often handicapped by commodity charges. We cannot shoulder the responsibilities of our patients' neglect and with timidity suggest service charges much too inadequate for the value of such repair.

It is about time that the valuation of natural dentition is appreciated. The public is known to value their comforts far more than their health. Surely the national bill for cosmetics is far greater than that spent for dentistry. It is almost time that through some medium the aesthetics as well as the functional worth of our dentition is generally understood. The profession of medicine has been glamorized by the mother and the child. Pediatrics although high in public esteem is as remunerative as other phases of medicine. Yet due to economic reasons the

* Presented before the Toronto Academy of Dentistry

primary teeth of our patients are generally neglected. Prosthesis is considered a very profitable dental procedure. In comparison the medical profession give more consideration to prevention than to artificial limbs. It is our fundamental duty to preserve the integrity of the health and function of the natural teeth. Until we generally consider this responsibility the primary reason for dentistry, we cannot expect a favourable public reaction.

RESPONSIBILITIES

The public have a right to demand excellent dentistry. Too often personal-ity substitutes service of high quality. A beautiful well-appointed office and efficient assistance and modern equipment do not justify a fifteen minute prophylaxis.

It will not excuse the limited appointment which does not allow sufficient time for painstaking diagnosis. There is no justification for careless operative procedures.

INCONSISTENCIES

The many investigations from a clinical and chemical and physical basis have resulted in sufficient knowledge to establish a general understanding by the dental profession in the correct management of amalgam.

It has been my observation that there is too much inconsistency about such matters as cavity preparation as well as management of the material.

It should be generally understood that amalgam must be controlled by the operator or the initial expansion or contraction will exceed the limits of safety. It would interest all of us that the cavity plays a more important role for amalgam than for any other filling material because we are dealing with a mass that has a greater coefficient of expansion than the structure into which it is placed. Also amalgam is not content to remain inert unless properly condensed and locked into the cavity. More time must be taken in cavity preparation than is

generally observed. Too often no consideration is given to the physical properties of a material that has such a low tensile strength.

It has been my observation that some are concerned about the matter of correct trituration and are unconcerned about the correct apportionment of mercury and alloy. Others take extreme care to be meticulous in the management of amalgam yet they are unconcerned about milling the mass in the bare hands. Those who are concerned about moisture contamination seem justified to build the restoration in the cavity of a tooth that is not kept dry by a rubber dam. In the matter of matrix, it has been perplexing that those who are content to use the commercial variety find themselves restoring contact by first removing the band and pressing against the marginal ridge, thus disturbing the entire filling and making it a fit subject for complete failure.

SUGGESTIONS ABOUT THE CAVITY

In consideration of the methods which are necessary to obtain satisfactory results with amalgam, it has been my observation that the employment of the rubber dam is the step of greatest importance in the performance of a practicable technique. However, the history of an uncomfortable tooth which has been previously filled demands that one gravely reconsider the thermal and galvanic irritation to the vital tissue of the tooth during restoration. We must heed the warning of Henschel³; that is, cavities should not be prepared in a manner which produces enough heat to incur irreparable damage to the pulpal tissue. It is my custom to prepare the greater part of the cavity before the dam is adjusted, using acceptable methods to control heat. After the dam is placed, the cavity is then finished in a better degree of accuracy because the field is perfectly visible.

One has only to experience the painful administration of cold air and

water during a dental procedure to learn the value of cavity varnish. Any cavity of average depth should receive this proven protection.

In case of bases, when extreme depth demands protection, it is well to consider the research of Manley⁴ who warns that the caustic action of cements, especially copper cements, causes damage comparable to silicate cements. The recent research of Zander⁵ is ample proof that oxide of zinc powder mixed into a paste with eugenol is a safe pulpal protection. The difficulty with such a base is its slow setting nature. This can be somewhat accelerated with zinc acetate, but even then it will not set hard enough to enable building the amalgam restoration immediately over it. However, there are preparations which are safe and will set at once. Thymol and oxide of zinc crystals can be melted into deep parts of a cavity and can be safely covered with cement. Jodo-formagen can be mixed into a paste which will set.

No doubt there are other preparations, too many to mention, which are valuable. Nevertheless, it is wise to use only those formulas which have been approved by the Council of Therapeutics of the American Dental Association. Whether bases are used or are not used, we must bear in mind that all decay must be removed and we must not depend upon the therapeutic value of medicated cements⁶.

Close study of the radiographic picture is necessary before one can determine the method of cavity procedure. The healthy vital tissue is often protected by secondary dentine especially in older patients. This is apparent because the pulpal horn has receded and the removal of the leathery carious dentine will uncover the sclerotic tissue which, according to recent investigation by Dorfman, Stephan and Muntz⁷, is usually sterile. In those cavities where some caries must be left to eliminate exposure the use of silver nitrate as suggested by Zander and Burrill⁸ may lead to pulp re-

cession and the establishment of secondary dentine especially in young patients. It is good practice to fill the doubtful cavities temporarily until the formation of sclerotic dentine has taken place, or the pulp has degenerated into a condition that demands its depletion, or the extraction of the tooth is indicated. There is no justification for the responsibility of these neglected cases without proper treatment and the patient must realize that he or she has presented a pathologic problem which demands their cooperation and may or may not result in canal therapy or extraction. To permanently restore these doubtful cavities with the blind hope that nature will come to the rescue is a haphazard method and removes the responsibility from a neglectful patient to the shoulders of the dentist and too often results in harmful criticism and lack of confidence. The patient-dentist relationship is on a firm foundation if the operative procedures are preceded by a painstaking and critical diagnosis.

MOISTURE AND AMALGAM

We are advised that moisture will cause delayed expansion of alloys containing zinc. Attempts to use non-zinc alloys because they are compatible with careless technique is not advisable. It has been our experience that non-zinc alloys which we have used are not comparable to the zinc variety. We might accept the suggestion of Schoonover, Souder and Beall⁹ who warned: "Certainly until a non-zinc alloy is produced which is free of manipulative difficulties as the present zinc alloys, the dental profession should not discard alloys containing zinc." Should we discard the zinc alloy and use the non-zinc there is still reason why moisture is dangerous. Taylor¹⁰ has shown that moisture will decrease the crushing strength and cause brittleness of amalgam. Blackwell¹¹ states, "No amount of packing pressure will drive out all the moisture from the cavity. During packing... the moisture interferes with the cohe-

sion of the mass." He was concerned with leakage when he wrote, "Black has clearly shown that saliva drying in a cavity would leave a residue of soluble salts on the walls of the cavity which would be dissolved by the fluids of the mouth after the filling was placed." From these conclusions it appears that a dry field of operation is necessary if desirable results are to be expected.

SELECTION OF ALLOY

The selection of an alloy has been aided by the Research Commission in reports on materials that meet the specifications of the A.D.A. Investigations on particle size by Coy and Leibig¹² suggest finely cut regular particles as having these advantages:

- 1) Less time of trituration
- 2) Less initial contraction
- 3) More adaptation
- 4) More tensile strength
- 5) Carves to a smoother surface.

This work was confirmed by Jarabak¹³ who stated, "Decrease in particle size causes a lessening of the effect of trituration on dimensional change. In most instances a greater sensitivity to dimensional change existed in the coarser particle sizes for given trituration and condensation."

The clinical advantages of fine cut alloys and especially those that are comminuted to regular shape and size should influence our selection.

APPORTIONMENT OF ALLOY AND Hg.

Black¹⁴ suggests that the apportionment of alloy and mercury should be measured by weight. Suggested ratios by the manufacturers are not by volume but by weight. Most ratios are nearly 60% mercury and 40% alloy. Black found this ratio was best because it afforded an overabundance of mercury making trituration complete and removing the mercury residue without endangering the balance of the amalgam. This was later confirmed by Ray and Easton¹⁵ who stated, "The excess mercury so re-

moved does not carry out sufficient amount of component metals to destroy the balance of the amalgam."

CONSISTENCY OF AMALGAM

The reason that this subject is important is because there seems to be a general misunderstanding as to what consistency triturated amalgam should be. Black¹⁴ stated that the mass should be lubricated enough so that it can be rolled into a rope without breaking, yet it will record the skin markings of the thumb or finger.

Tingley¹⁶ suggests, "Crepitus should not be present in the mix yet the mix should not be excessively thin." As a test, he further suggests, "A good consistency test may be made by dropping the spherical mass onto a flat surface from a height of 6 or 8 inches; after which the mass should be flattened out approximately one-half its diameter."

Thoroughly triturated amalgam should offer little resistance to mulling and should have a bright and glittering surface. It is far better to have too much mercury than not enough because we are sure that each alloy particle is coated and the excess can be removed prior to inserting the amalgam into the cavity. With the use of correct balance scales the correct apportionment becomes a consistent procedure.

TRITURATION

The common method of trituration is the use of the glass mortar and pestle. It is rather doubtful that this method can be considered the most uniform because this utensil must receive constant care to be efficient. If the mortar and the pestle are not roughened regularly, more time is consumed in trituration. If they are not kept clean, there is danger of contamination from old amalgam lodged in the roughened surfaces. Unless care is exercised in controlling the alloy and mercury during the procedure, there is the difficulty of including all of the alloy in the mass and some

particles are uncoated with mercury. Considering the fact that¹⁷ we should avoid too much pressure on the pestle and that overtrituration will cause shrinkage, it is doubtful that this method can be considered the most uniform and practical. However, if meticulously used, good clinical results may be expected provided trituration is followed by mulling.

Marie Gayler¹⁷ advocates a finger or thumb of a rubber glove, into which the alloy and mercury are placed, as an efficient triturating device. By rubbing the mixture to plasticity, it is done in a shorter time than can be accomplished with the mortar and pestle. This method accomplishes the pestlation and mulling in one operation and results in constant amalgamation. In practice, it is well to use many finger tabs and to wash and dry them between each use.

It is your essayist's opinion that the use of the finger tab or thumb stall is an easier and more efficient and time-saving method of triturating than the use of the glass mortar and pestle.

The advent of the mechanical amalgamator has caused some comment and has resulted in recent research¹⁸ which has resulted in a favourable conclusion because it affords the operator the opportunity of making this part of the technique more consistent. The clinical advantage is the ability of making more than one mix for large restorations, thus affording a fresh material at all times. This is an important subject because it is suggested by Taylor¹⁰ that the common practice of adding mercury to amalgam that has set too long on the bracket table to regain plasticity, reduces the compression strength of the restoration. Amalgam that has set over five minutes, according to Ward and Scott¹⁹, retains more mercury than that which is placed into the cavity immediately after trituration. If the mechanical amalgamator will save time and after regulation result in constant well-triturated amalgam, it is

definitely an attractive and helpful addition to the meticulous amalgam management. Having used this machine for seven years and at the same time used other methods of trituration, I can agree with Phillips¹⁸ who stated, "Mechanical amalgamation, owing to the elimination of human variables, consistently gives more uniform mixes than the mortar and pestle, even when an exacting technique is employed."

Caution must be given to those who are new users of this machine and who are impressed by the quickness that the alloy and mercury are triturated. Too often those who recently have acquired this machine are too apt to set the timer at a minimum limit of possibly six or seven seconds for a mix of 15 grains when it is far safer to add two or three seconds and be sure that it is thoroughly triturated. Even then, it is good practice to empty the contents in a clean piece of rubber dam and mull for a few seconds. It has been my clinical experience that thorough trituration and even over-trituration has shown no apparent contraction, but it has been quite evident on many occasions that under-trituration has resulted in a filling that expands and corrodes. This confirms the research of Phillips et al²⁰.

A CONTROLLABLE MATRIX

We are advised that the amalgam restoration should be homogeneous²¹. In order to build the filling so that each part is alike, we must adopt methods that will allow consistent condensation. The matrix for posterior two or multi-surfaced cavities should be firm. If the form yields, firm pressure with the condensing instruments allows an ever changing mass that is filled with cracks and voids due to the landsliding which follows the change of position of the matrix wall.

The matrix should have another quality which has received little attention. It should be adjustable to the will of the operator. The smooth, thin

band must be independent of any tightening device so that it can approach the proximobuccal and lingual cavity walls in a rounded relationship allowing enough space so that the amalgam can be overpacked in these areas. In fact, the band should be adjusted so that there is ample space to overpack the proximogingival angles. The only part of the cavity where the band is in close marginal adaptation is where the wedge firmly holds it at the middle two thirds of the gingival floor. Here the convenient form will allow the removal of the mercury excess while condensing.

The matrix should be made from three materials—.002 inch stainless steel banding material, a wooden triangular shaped wedge and reinforced with low-fusing modelling compound. The band should be cut so that it is wide enough to extend well below the gingival floor allowing ample material to be adapted at and below the cavo surface by the wedge, and extending about five millimeters above the marginal ridge of the adjacent tooth. It should only be long enough to cover one third of the buccal and lingual surfaces of the tooth, allowing enough uncovered enamel for the adhesion of the reinforcing compound. The band must be contoured in two ways. First, the natural contour of the proximal of the tooth is copied with round nosed pliers. Second, the proximal proximoclusal third of the band should be contoured so that it is as concave as that portion of the tooth is convex. Clinical observation of the marginal ridge area discloses that anatomical feature. A band perfectly straight from the gingival to its extremity above the marginal ridge will result in a restoration having a straight wall meeting its adjacent contact with too thin an area which, through wear, will ultimately lose its effectiveness. Another fault of such an unanatomical proximal wall is its inability to resist food impaction which is gained through excursions lingually or buccally due to too high

an interproximal embrasure. It is beyond the comprehension of those who are serious in their amalgam technique to understand why the commercial matrix is so generally used, because it cannot be controlled, and unless reinforced, yields under packing pressure. There is little advantage in time of adaptation over the one suggested.

MECHANICAL CONDENSATION

In recent years there has been a trend to rely upon mechanical devices to overcome inconsistencies in condensing amalgam into the cavity. Reports by Sweeney²² indicate that the mechanical built filling has greater strength and less flow and shows less tarnish. It is necessary that we consider whether a mechanical method of condensing justifies the multitude of such devices that are sold to the profession for this purpose.

Ward and Scott¹⁹ showed that pressure in packing is directly related to the decrease of flow. It was necessary to have a ten pound pressure by hand to condense the specimen to bring it within the four per cent specification.

It has been brought to our attention that setting expansion is decreased by the removal of mercury during packing¹⁹. It is true that some types of mechanical condensers will remove an unusual amount of mercury because of the type of action of the mallet blows, and from clinical experience, the fast repeated blow need not be too forceful to attain this result.

Most of us know that with a hand condensing instrument we can activate the appearance of mercury more rapidly by a rocking or tapping than by sustained forceful pressure. We can always activate the appearance of mercury with a burnisher, but it is doubtful that such a method really condenses. Some types of handpiece condensers are really vibrators which, in reality, just continue the process of trituration within the cavity. Others have a constant pressure with no means of increasing or decreasing the blow. If a mechanical device is

used for this purpose, it should be a hammer blow and should be controllable.

It is suggested that the amalgam filling be condensed with the same pressure from the floor to the occlusal surface²¹. If it is to be a homogeneous restoration, the consistency of the pieces placed in the cavity should be the same. That means that the same amount of mercury should be expressed each time and the same amount of pressure and the same manner of condensing must be exercised for each layer of amalgam. The removal of mercury excess as it appears during packing is not more important than the removal of the excess during overpacking. It must be remembered that the too common practice of placing mercury-rich amalgam on the floor and overpacking with extra dry amalgam is contrary to the principles of correct condensation. Clinical experience definitely shows that amalgam of the same consistency should be used throughout.

From the above suggestions it would seem advisable that mechanical condensation with a fixed force would be preferable and even necessary, but again clinical observations of restorations that were built by hand instruments give reason to believe that if we are meticulous in our methods, the results are similar.

The use of mallet force needs some advice of caution. The pneumatic condenser, which we have used with considerable success, must be regulated to a minimum blow. There is no clinical advantage in using a hard blow because only a small amount of amalgam should be added each time and a terrific force has a tendency to disrupt that which is already condensed and if the force is too harsh, the tooth may be traumatized and the condenser face will even cut into the matrix band or at least disfigure it. If the blow comes into contact with enamel margins, fractures will result. At no time should the pneumatic be used for occlusal overpacking unless

a resilient material be placed between the steel condenser face and the tooth. It is much safer if hand instruments are used at this stage of condensation unless a rubber faced instrument is used.

OCCLUSAL OVERPACKING

Occlusal overpacking needs more consideration because too often we rely on packing a large amalgam mass which is expected to uniformly pack the amalgam against the margins. This method is contrary to mechanical law because the cusps and the incline planes will receive more pressure than the depths of the sulci and fissures into which the cavity is made. If, on the other hand, we incline the condenser face to pack against the margin because there are irregularities of the usual occlusal outline, that would not permit a flat faced instrument to exert uniform condensation. Clinical observation of the occlusal failures are common to all of us. The common pitted amalgam surface with fractured or uncovered margins is the result of improper and non-uniform packing.

For some time we have used rubber faced instruments for this purpose. The rubber block is trimmed so that it is wedge shaped and under pressure it exerts uniform force complimentary to the surface of the tooth. The force is against the bulk of the filling and at the same time against the margins. This method is worthy of consideration. The resiliency of the rubber activates excess mercury to the surface with great speed permitting its removal by the instrument before it falls back into the filling. Clinical observations of occlusal surfaces of restorations built this way are superior.

FORM INSTRUMENTS

It has been necessary to design instruments²² that will efficiently condense amalgam into the occlusal extensions. Too often we are confronted with the distolingual and occlusobuccal grooves which are continuations of the occlusal surfaces. To

attempt to construct a homogeneous restoration with instruments of conventional design, the results are disappointing because it is impossible to pack one part without disturbing that which is already condensed in another. "Saddle" points to fit the angular cavity and to overpack it have been used with remarkable success.

Concave condensers have been designed so that amalgam may be uniformly packed into gingival cavities that are extensive and have convex floors. Overpacking instruments of the same design will efficiently condense against the convex surface without disturbing the amalgam which fills the cavity.

MANAGEMENT OF AMALGAM

The triturated amalgam should be rolled into a rope and placed on the bracket and cut into pieces. As each piece is picked up with a carrying instrument, it is placed in a squeeze cloth and the mercury excess is removed until the right packing consistency is gained. This is tested by replacing the amalgam in the cloth and if, upon pressure between the thumb and finger, there reappears a sphere of mercury, it is ready for condensation. A small amount is placed in the cavity and with small instruments, it is packed into the angles and retentions. Next, a large instrument is used to condense it and at the same time the mercury excess that appears at the surface is removed by the ledged instrument. This procedure is repeated with large instruments until the cavity is filled. More amalgam of the same consistency is added, and the cavity is filled, and the mercury excess removed. Overpacking is necessary on all surfaces except where the wedge firmly adapts the band at the gingival of class II posterior cavities. If the cavity is filled just to and including the margins, there is the danger of a mercury rich amalgam at this important junction which will fracture and allow leakage. In reality, the two surfaced restoration should be

overpacked on the occlusal, the proximo-buccal and lingual margins and also the angles formed by the gingival floor and the proximal walls.

CARVING

Preliminary carving should be started before the matrix band is removed. The band offers an excellent guide in forming the contour of the marginal ridge with its important occlusal embrasure. For this purpose, a fine explorer point can be used. In removing the occlusal excess, the carving instrument should be placed so that it rests on the tooth surface extending over the filling and drawn in the direction of the outline of the cavity. The blade of the instrument is guided by the tooth structure and prevents excessive removal of amalgam at the margins. Never should a carving instrument be drawn to or from a margin.

The fissures and sulci should be carved with care that they are not too deep or angular. The ridges and incline planes and cusps should be reproduced to their original form, thus restoring the tooth to its normal function. Reproduced anatomy and elimination of excessive carving with deep angular fissures will result in a restoration that will keep its polish and have greater strength at the margins.

The removal of the matrix band should be in a buccolingual direction. When it is removed, the excessive amalgam over the margins of the proximal portion can be carved with care. It will be found that the gingival proximal angles will be overpacked, and at these areas there will undoubtedly be some overhang. It must be remembered that it was planned that the band was not adapted closely here because these angles do not permit convenience to mercury removal during the condensing as well as the middle two-thirds of the gingival where the band is firmly adapted by the wedge. These are clean areas and should be carved of marginal excess

at this time. If the wedge is correctly adjusted, there will be no overhang at the middle two-thirds of the gingival. At this time it is good practice to push a small pledget of cotton through the interproximal area to remove amalgam debris.

We must be careful in testing the occlusion of the opposing teeth. The use of articulating paper can establish high points but it must be done with caution, and where the restoration is doubtful in occlusal relationship, it is good practice to allow the restoration to set a few minutes before an accurate adjustment is made.

Previous information should acquaint us with the correct methods for polishing amalgam. In order to properly perform this important function, it is necessary to acquire brushes that are designed for this purpose.

Stiff pointed brushes that will polish the fissures and sulci definitely remove scratches that are so commonly found. In order for an amalgam restoration to resist corrosion²¹, it must be polished.

In clean mouths the usual bright anatomical amalgam filling is aesthetic and comfortable.

Such a restoration is appreciated by the patient and demands a just fee.

CONCLUSIONS

Raising the standards of operative dentistry by meticulous procedures, results in a general appreciation of those patients who desire to enjoy their natural dentition. The remuneration for such standards of dental service is comparable, if not greater than, fees received for short cut procedures that result in service of lower quality. It is obvious that sincere application of accepted technical meth-

ods which are arduous, influences the respect of one's practice in the matter of the value of good dentistry.

BIBLIOGRAPHY

1. Sweeney, J. T.: Manipulation of Amalgam to Prevent Excessive Distortion and Corrosion. J.A.D.A. 31:375, March 1944.
2. Hollenback, G. M.: Behaviour of Amalgam and the Technique of Its Use. J.A.D.A. 24:386, March 1937.
3. Henschel, Chester J.: The Friction of Revolving Steel Burs. J.A.D.A. 31:895-902, July 1944.
4. Manley, E. B.: Preliminary Investigation in the Reaction of the Pulp to Various Filling Materials. Brit. D.J. 60:321, April 1, 1936.
5. Zander, H. A.: The Reaction of Dental Pulps to Silicate Cements. J.A.D.A. 33:1233, October 1946.
6. Hill, T. J., and Boester, K. W.: Relative Efficiency of Germicidal Cements. J.A.D.A. 21:1565, September 1934.
7. Dorfman, A., Stephan, R. M., and Muntz, J. A.: In Vitro Studies on Sterilization of Carious Dentine. II. Extent of Infection in Carious Lesions. J.A.D.A. 30:1893, December 1943.
8. Zander, H. A., and Burrill, D. Y.: The Penetration of Silver Nitrate Solution into Dentine. J.D. Res. 22:85, April 1943.
9. Schoonover, I. C., Souder, Wilmer, and Beall, J. F.: Excessive Expansion of Dental Amalgam. J.A.D.A. 29:1825, October 1942.
10. Taylor, N.O.: Amalgam Technique; Dependable and Dangerous Practices. J.A.D.A. 17:1880, Oct. 1930.
11. Flackwell, R. E.: Amalgam Fillings, with Some Suggestions as to Their Practical Use. J.A.D.A. 18:1179, July 1931.
12. Coy, H. D., and Liebig, E. O.: Dental Amalgam. D. Items of Interest 60:135, February 1938.
13. Jarabak, J. R.: Effect of Particle Size on Dimensional Change in Dental Amalgams. J.A.D.A. 29:593, April 1942.
14. Black, G. V.: Operative Dentistry. Vol. II, Chicago, Ill., Medico-Dental Pub. Co., 1908.
15. Ray, K. W., and Easton, G. S.: Changes in Composition of Amalgam Alloys during Amalgamation and Condensation. J.A.D.A. 18:1076, June 1931.
16. Tingley, H. E.: The Ideal Amalgam Restoration. J.A.D.A. 21:1753, October 1930.
17. Gaylor, M.L.V.: Some Factors Affecting the Setting of a Dental Amalgam. Brit. D.J. 56:605, June 15, 1934.
18. Phillips, R. W.: Physical Properties of Amalgam as Influenced by Mechanical Amalgamator and Pneumatic Condenser. J.A.D.A. 31:1308, October 1944.
19. Ward, M. L., and Scott, E. O.: Further Studies of the Effect of Variations in Manipulation on Dimensional Changes and Flow of Amalgams. J.A.D.A. 22:1164, July 1935.
20. Phillips, R. W., Boyd, D. A., Healey, H. J., and Crawford, W. H.: Clinical Observations on Amalgam with Known Physical Properties. Final Report. J.A.D.A. 32:325, March 1945.
21. Schoonover, I. C., and Souder, Wilmer: Corrosion of Dental Alloys. J.A.D.A. 28:1278, August 1941.
22. Sweeney, J. T.: Uncontrolled Variables in Amalgam with Significant Improvements in the Making of Restorations. J.A.D.A. 27:190, February 1940.
23. Miller, E. Carl: Amalgam—Inconsistencies in its Use in Restorations. J.A.D.A. 33:349-358, March 1946.

No dental practice is complete without a dental assistant with charm and personality who can greet patients with a smile, keep them happy during their visit and send them away smiling and looking forward to their next appointment with pleasant anticipation rather than fear and trepidation.—The Dental Assistant.

PERIODONTAL PACKS AND THEIR APPLICATION*

by W. G. McINTOSH, D.D.S., Toronto, Ontario

IN THIS paper "Periodontal Pack" refers to any dressing or pack that may be used in the treatment of periodontal disease. The current forms of packs are classified, and described. An example of each type of pack is given and at least one technique is suggested for its use.

A classification of periodontal packs, based on the main purpose for which they are used, is as follows.

1. Germicidal.
2. Displacement.
3. Combined germicidal and displacement.
4. Chemosurgical.
5. Protective. (surgical)

I. GERMICIDAL PACKS

Main principles—

- (a) Chemotherapy.
- (b) Germicide.
- (c) Fungicide.
- (d) Adsorption of enzymes¹.
- (e) Obtundent.

Indications

- (a) All infected (acute or chronic) pockets (gingival and periodontal²).
- (b) Before scaling or other manipulation of infected tissues.

Example of germicidal pack.

Dr. Box's adhesive dressing³:

Powder:	Zinc oxide	40 parts
	Powdered colophony (resin)	45 parts
	Tannic acid	10 parts
	Kaolin (sterilized)	2.5 parts
Liquid	Eugenol	98 c.c.
	Thymol	2 grams

Technique

1. For relatively shallow crevices:
 - (1) Make a creamy mix.
 - (b) Clean and dry adjacent tooth surfaces.
 - (c) With suitable plastic instrument apply the mix into the crevices and over the gingival margins without pressure.
 - (d) Gently press into interproximal spaces with the finger or small piece of gauze moistened with alcohol.
2. For deeper pockets:
 - (a) & (b) as above.
 - (c) Gently place cotton fibres soaked in the eugenol-thymol liquid to the bottom of the pocket.
 - (d) Fill the pocket with additional cotton fibres mixed with pack.
 - (e) Cover with more pack to seal other portions in place. This dressing is left in place for 48 hours, then removed and replaced if necessary. It is generally followed by scaling or another type of pack.

Desired Results

- (a) Elimination of gross infection.
- (b) Reduction of inflammation and oedema.
- (c) Reduction in soreness.
- (d) Production of some recession due to reduction in swelling.

II DISPLACEMENT PACK.

Main principles

- (a) Soft tissue displacement.
- (b) Pressure atrophy.

Indications

- (a) Gingival pockets with little or no infection.

* Presented before the Eastern Ontario Dental Association, September, 1946.

- (b) Hypertrophied tissue covering the gingival margins of cavities.
- (c) Healing areas that are not self-cleansing, e.g. after pocket surgery where the initial granulation tissue has formed but there is still no covering epithelium—the tissues are too tender to permit the use of a tooth brush or interdental cleanser. During the healing period it is desirable to keep the area free of food debris and under mild stimulation in order to promote normal healing and prevent excess granulation.

Example of Displacement pack

Dunlop Wax ⁴

This is essentially paraffin, modified with boracic acid, oxygen—yeast compound, and oil of peppermint.

Technique

- (a) The wax is softened in warm water and pressed into the pockets or spaces either with instrument and finger pressure or forced from a Dunlop wax syringe.

At present, the combined germicidal and displacement type of pack is preferred for indications (a) and (b).

- (b) The patient is instructed to change the wax himself morning and night.
- (c) This procedure is continued until the healing is complete.

Desired Results

- (a) Healing of the soft tissues without excess granulation or hypertrophy.

III COMBINED GERMICIDAL AND DISPLACEMENT PACKS

Main Principles

- (a) Germicide.
- (b) Fungicide.
- (c) Displacement of soft tissue.
- (d) Dehydration.
- (e) Adsorption of enzymes.
- (f) Protective splint.
- (g) Obtundent.

Indications

- (a) All types of pockets—where the infection is chronic, and mild to moderate in degree.

Examples of Combined Germicidal and Displacement Packs

- (1) Dr. Box's formula with 15% by volume fine asbestos fibre.
 - (2) "Periodontal Pak" Formula ⁵.
- | | | |
|--------|----------------------------|--------------|
| Powder | Zinc oxide (fine powder) | 2 lbs. |
| | Resin (fine powder) | 2 lbs. |
| | Tannic Acid (U.S.P. grade) | 4 ozs. |



	Asbestos (763 Canadian Asbestos Co.) 1 lb.
Liquid	Eugenol 75 parts
	Sweet Almond
	Oil 25 parts

Technique

- (a) Make a thick dry mix. Free powder within the mix reduces stickiness.
- (b) The consistency should vary with the depth of the pocket, the consistency of the tissue and the degree of inflammation e.g. a heavier pack is required to displace dense fibrous tissue than to displace loose oedematous tissue.
- (c) Dry the area to be packed.
- (d) With a suitable plastic instrument work a small piece of the packing material to the depth of one crevice in an interproximal embrasure.
- (e) Add sufficient pack to fill this crevice.
- (f) Repeat for the adjacent crevice in the same embrasure.
- (g) Lock these in place by filling the interproximal embrasure. (Fig. 1)

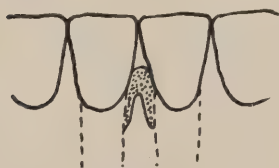


FIG. 1

- (h) Pack the crevices in the next interproximal embrasure as in steps d, e, f, g.
- (i) Pack the crevices between these two portions (x to y, Fig. 2).

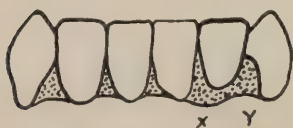


FIG. 2

- (j) Add slight excess pack, and with light finger pressure mould

it gently toward the gingivae in an apical direction. This will cause a slight blanching of the gingivae which disappears again in a few minutes.

- (k) If indicated pack on opposite side of the teeth in the same manner. Usually only one half of the mouth is packed at a time. The pack is left in place for 48 hours and may be repeated if necessary.

Desired Results

- (a) Elimination of infection.
- (b) Reduction of inflammation and oedema.
- (c) Reduction in soreness.
- (d) Marked reduction in the depth of the gingival pockets formed by oedematous tissue.
- (e) Dilation of the soft tissue wall of the pocket, in true periodontal pockets, and in gingival pockets formed by dense fibrous hyperplastic tissue accompanied by some reduction in depth.
- (f) Exposure of calculus and other subgingival irritants.

Scaling, polishing and oral hygiene instruction must follow immediately or the tissues will quickly revert to the original state.

Chemosurgical Packs

Main Principle

- (a) Soft tissue coagulation and necrosis.

Indications

- (a) Gingival pockets with relatively thin soft tissue walls.

Example of Chemosurgical Pack

Dr. Orban's Paraformaldehyde Pack
Formula:

Powder	Zinc oxide .. 70.0 grams
	Zinc acetate .. 1.0 gram
	Zinc stearate .. 1.0 gram
	Resin 28.0 grams
	Paraformaldehyde 5.0 grams
Liquid	Eugenol 85.0 C.C.
	Cotton seed oil 15.0 C.C.

Technique:—suggested by Dr. Orban ⁶

- (a) Make a creamy mix.
- (b) Lightly pack a few cotton fibres covered with mix into the pocket covering the gingival margin.
- (c) Leave the lingual open for drainage.
- (d) Paint the surface of the pack after it has hardened with cavity varnish to prevent irritation to the mucosa of the lips and cheeks.
- (e) Remove the pack in two days and cover the tissue with a bland zinc oxide pack.

Precaution

Do not pack below the level of the bone as it may cause necrosis and sequestra of bone. Hence it is not indicated in true periodontal pockets. Dr. Orban states it is self limiting and does not coagulate tissue beyond 1½ m.m.'s from the pack.

Desired Results

Production of recession by necrosis and sloughing of the soft tissue wall of the pocket.

PROTECTIVE OR SURGICAL PACKS

Main Principles

- (a) Prolonged action of obtundent drugs.
- (b) Prolonged action of germicidal drugs.
- (c) Protective splint.

Indications

- (a) After gingivectomy or other forms of pocket surgery.

Examples of Protective Packs

- (a) Peri Pak.
- (b) Surgo Pak.

Technique

- (a) Make a "pasty" mix.
- (b) Cover all incised tissues, lock-

ing the pack through the interproximal spaces.

- (c) Insert the pack without pressure.
- (d) Leave the dressing in place for from 3 to 10 days depending on the extent of surgery and the rate of healing.

Desired Results

Normal healing of the tissues with little or no pain. While for the sake of clarity marked distinctions have been made between the different types of packs, it is possible and often good practice, by varying the consistency of the mix and the method of application to use one pack for several purposes. For example a soft mix might be used as a germicidal dressing and a thicker mix of the same pack as a combined germicidal and displacement type of dressing.

CONCLUSION

The use of periodontal packs can be a great aid in the treatment of periodontal diseases. It is not however a complete treatment in itself. Other phases such as the removal of irritants, adjustment of occlusions, the practice of good oral hygienic measures etc., must also be considered in order to plan a complete treatment and to obtain satisfactory results.

BIBLIOGRAPHY

1. Box and Ham, 1942. Necrotic Gingivitis. Its Histopathology and Treatment with Adherent Dressing, *Oral Health* 32: 721.
2. Williams, 1943. Rationalization of Periodontal Pocket Therapy, *Journal of Periodontology* V, 14:67 July.
3. Box and Ham, 1942. Necrotic Gingivitis. Its Histopathology and Treatment with an Adherent Dressing, *Oral Health* 32:721.
4. Box, 1940. Twelve Periodontal Studies.
5. Linghorne and McIntosh, 1944. The Development of a Treatment of Periodontal Diseases for use under Service Conditions, Report to National Research Council, Ottawa. Grant No. A.M. 17-4.
6. Orban, 1943. The Use of Paraformaldehyde and Oxygen in Periodontal Treatment, *Journal of Periodontology* V 14:37 January.

I disapprove of what you say, but I will defend to the death your right to say it.
—Voltaire.

ON WEARING FULL DENTURES

by RALPH R. DALGLEISH, D.D.S., Sydney, Nova Scotia

INFORMATION gleaned from denture-wearing persons in and from many parts of the country, leads us to believe that in the vast majority of cases dentures are placed with little or no instruction to the patient. While today the simplest mechanical device is accompanied with minutest instructions for use, here we have a profession supplying supposedly highly scientific replacements for natural organs, with very casual, insufficient, sometimes contradictory directions for wearing. For instance, patients are told either to wear them under all circumstances or take them out to rest the mouth; to eat with them at once—or not to eat with them at first; if soreness results to come back for adjustments—or to fight them until sore spots disappear. It would appear that as the construction of dentures becomes an every day occurrence to us and is passed over lightly, we forget that for the patient it is an event of a lifetime, and for them a lifetime job. We feel that the success or failure of dentures depends largely on patient instruction, and so have laid great stress on this point in our practice. The apparent lack of any discussion about this subject in the literature has so prompted us to "write an article about it".

We have tried to teach the patient from the moment the work is started, but find that until the dentures are actually in the mouth they are really not susceptible to any practical instruction. As a result of this we merely talk dentures as much as possible at each appointment, trying to bring out the patients' mental attitude, what they know about artificial dentures—and most important, what they have heard about them. Information they give helps you to interest them, so that you can explain what you are at-

tempting to do and how they can assist. Then when the work progresses to a try-in stage your patient really is ready to take an interest in shades, shapes and appearance generally, and to help in arriving at a result satisfactory to both.

LECTURE TO PATIENTS

After completing the dentures I usually place them in the patient's mouth and informally sit down in front of the chair and announce with a grin that I have a little lecture I usually deliver at this time, and proceed about as follows:

"You likely know of many people who do not wear their artificial dentures, and the lowers particularly often lodge in a glass of water, in a bureau drawer or even on the mantelpiece. There may be three reasons for this: dentures did not fit, they did not fight them hard enough, or they did not have the dental attention they required after they started to wear them. We have done our best to make these teeth properly, and are going to make sure that you fight them and see you every day, if necessary, and help you until you have mastered them. There are two ways to learn to wear them. First, the easy way, which gives you lots of liberty in taking them out etc. but which often ends unsuccessfully. The second, or more difficult method, but usually successful, which we use. Frankly, we intend to brow-beat you for a week or so believing that it is better for you to have one perhaps very difficult week and then be happy for the rest of your life. So you must keep these in your mouth for twenty-four hours (whether you want to or not) and then come back and I will remove them, clean, adjust and replace them, and so on until you are definitely winning. Keeping them in—

means just that—keep them in. If you cannot eat, you do not eat, and the same applies to everything else including sleeping.

“Frankly I do not worry very much at the moment what they look or feel like. Your car was not adjusted until it was run in, and so we adjust your teeth as they settle and you wear them. Certainly you may have sore spots, but by tomorrow I will be able to see them easily and correct that edge that is cutting you. They may even flip and flop, but you will have to persevere. You must get the right attitude at first. These are just beautiful bits of porcelain in a plastic, lifeless as stone, and they will do nothing for you, but you are alive, and just as your mouth tissues and muscles will adapt themselves to these new friends, so you mentally must make up your mind that you are the boss and will handle them. When you were a child you did not learn to walk or talk in a day, and so you cannot eat with these at once. Your own teeth were solid and you could bite with the front teeth to your heart's content, and so eventually you may with these; but notice that they have a tendency to dislodge when pressure is applied in front, then see here how steady they are at the sides (demonstrate). So place your food in smaller bits at the sides and work it back, grinding it with the back teeth. In fact “back teeth”—“back teeth” might well be your theme song for a few days. In this way you will always be seating your dentures, and after a while you learn to use the front teeth; but you must start at the back first.

“They may have a tendency to gag you; we could correct this by adjusting the upper, but that affects stability—so we place that back border where it should be and make you adapt yourself to it. Holding your nose and breathing through the mouth, or getting to the fresh air will help, but if you must vomit, get it over with, with the denture still in your mouth. Then remove it, wash and replace it

at once. Each attack will be easier and I have never seen a patient who could not overcome gagging”.

Of course we vary this talk according to circumstances. Then I give the patient a large hand mirror and explain these points in detail, also any irregularities we have created and why. Before the patient has a chance to speak about the upper lip “sticking out”, we explain this feature and the fact that it can be reduced if necessary later. We then suggest that we have been examining these teeth too closely to get the proper effect, and so have them stand a few feet in front of a large mirror. If they like the appearance at this point your troubles diminish. That is an important point. If they like them they will wear them.

AFTER TWENTY-FOUR HOURS

The patient returns in twenty-four hours in every condition from happiness to tears. You check the bite with carbon, remove the teeth and have a hot refreshing mouth wash ready. Adjustments are made, sore spots are relieved, and what is more, you listen carefully to the patient's story of troubles and make all explanations necessary in detail. Particularly if the case was immediate you will find that much of what you said yesterday did not register.

Occasionally they will come back with the lower in their pocket. In this case you should laugh it off, perhaps ridicule their inability to keep them in, or really get mad. I find getting mad usually most effective as it has best results, since the type of patient not co-operating is the one you really have to ride. It is a good idea to look in the mouth first before deciding your line of action. The reason may be obvious.

We repeat the performance for another day or longer, as we think necessary, until it is really an event when they are allowed to take them out and clean them themselves. (You already have instructed them). Frankly, if

thought necessary, we are not averse to using a minimum of powder on dentures for the first few days, discontinuing it as the patient gains confidence and before they are permitted to remove them themselves. They do not know of its use, and are warned that if they ever come to a point where tempted to use it, that they should get in touch with the office at once. We keep repeating that we can make them fit right and look right but we cannot wear the teeth for them. Finally we ask them to come in again in a week; and in the meantime it is understood that no news is good news, if they have trouble to tell us, not the neighbours. Speaking of the neighbours, we warn the patient to listen graciously to all their well-wishing friends tell them about dentures, then to forget it all and do exactly as we say. We place the entire responsibility on the patient for two weeks. After that if they have conscientiously tried to wear them, we start to worry, and well we might. By that time any dentist should know what is wrong with his work and be only too eager to correct it.

SHRINKAGE

Patients accepting dentures (particularly immediates) should be told what to expect from shrinkage, the neces-

sity of re-basing, and the fact that they will be happy following that procedure. At the time of re-basing when re-building lost facial contour, particularly if the cases were made without a labial portion, it is wise to explain the apparent fullness of the upper lip, and even to phone someone at home and explain that in a few days they will realize that the patient now looks like they used to with natural teeth.

The out of town patient is a problem, but we have learned that it pays to insist that they remain at least until the first adjustment or so is made, then they may even be taught to correct any soreness they may have.

This may not be the story you will tell your patients, and we are merely recounting our routine to sell the idea of really telling them something definite, and staying right with them until they are happy.

We are now giving more time than ever to helping patients to be happy (we like that term) with their dentures. Three things are essential. First you yourself must be satisfied that they are good fitting dentures; the patient must think they are good looking dentures; then with proper instruction, care and assistance they can in nearly all cases become good wearing dentures, and so be considered successful.

ANNOUNCEMENTS

Northern Ontario Dental Association

Meeting will be held on Saturday, September 6 at Kirkland Lake, Ontario.

President: Dr. Percy Hill

Secretary: Dr. Norman Downer

Eastern Ontario Dental Association

Meeting to be held in Chateau Laurier in Ottawa on September 21, 22, 23.

President: Dr. L. R. Braden

Secretary: Dr. Aimé Couture

How can we expect another to keep our secret if we cannot keep it ourselves?
— La Rochefoucauld.

ANNOUNCEMENTS

Annual Meeting of C.D.A.

The dates for the Annual Meeting at Digby, Nova Scotia are as follows:

BOARD OF GOVERNORS' MEETING

Friday, June 20, beginning at 1.00 p.m. o'clock to Tuesday, June 24, 1947.

NATIONAL CONVENTION OF CANADIAN DENTISTS

Tuesday, June 24, beginning at 2.00 p.m. o'clock to Friday, June 27, 1947.

Université de Montréal Graduate Courses in Orthodontics

The next graduate course in Orthodontics will begin on September 15 1947. Lectures and clinics will be given in the English and French languages. Applications for this course should be sent in as soon as possible to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal (26), Qué. Canada.

Montreal Dental Club, Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel on October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration, two progressive clinics, essays, table clinics, visual education and other interesting features.

Any practitioner interested in presenting a table clinic at this meeting should communicate with Dr. C. C. Bourne, 1414 Drummond St., Montreal.

M. L. DONIGAN, *Director*, 1414 Drummond St., Montreal

Psi Omega Banquet

On August 3, at the Copley Plaza Hotel in Boston the annual Psi Omega Banquet will be held. Psi Omegas and their ladies are invited. Make reservations with Dr. Glenn Lawrence, 412 Beacon St., Boston, Mass.

American Academy of Periodontology

Boston, Mass.—July 31 to Aug. 2. Headquarters, Hotel Copley-Plaza.

American Dental Association Convention

Hotel reservations for the 88th annual meeting of the American Dental Association at Boston, August 4 to 8, should be made immediately.

Application blanks for reservations plus instructions for filling them out may be secured from the A.D.A. Housing Bureau, 80 Federal Street, Boston 10, Mass.

Because of the large attendance expected the Housing Bureau has formulated strict rules for the handling of all hotel reservations.

All reservations made will be subject to confirmation by the holder by July 15. Forms for this purpose will be sent to reservation holders by the Housing Bureau about June 15. Failure of the holder to confirm reservations by July 15 may result in their cancellation at the option of the Housing Bureau.

The Forum

DISSOLUTION OF SUBSTANCE OF TEETH BY LEMON JUICE

by EDWARD C. STAFNE, D.D.S., and STANLEY A. LOVESTEDT, D.D.S.

Condensed from Proceedings of the Staff Meetings of the Mayo Clinic, March 5, 1947.

In recent years, the marked increase in use of lemon juice has been accompanied by injury to the structure of teeth.

In instances wherein loss of structure is caused by acid solutions, four findings are of more or less common occurrence:

1. Teeth may be hypersensitive to thermal changes and hygroscopic substances. This may be a major complaint and is often the patient's primary reason for seeking the services of the dentist.

2. Often stain and stain lines are absent, which gives one the impression that measures of dental pro-

phylaxis have been applied recently.

3. Defects in enamel produced by action of acid solutions usually have rounded margins while, in contrast, defects produced as a result of mechanical wear only have sharper margins.

4. A finding which probably is of greatest diagnostic value is the presence of fillings which project above the surface of the teeth.

Increased production and wider distribution of lemons and other citrus fruits have led to marked increase in their consumption; now they are available almost at all times. This, no doubt, has brought about a

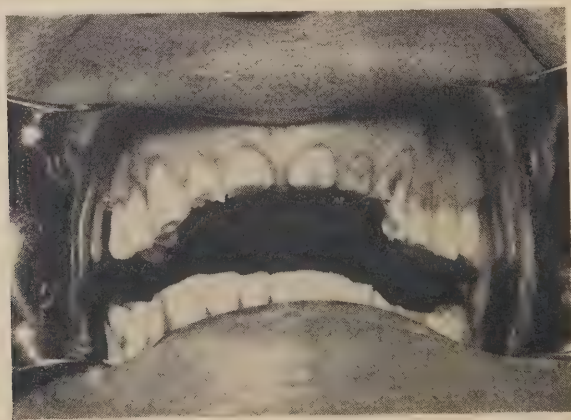


Fig. 1. The teeth of a man who for an undetermined number of years, had drunk lemon juice in water on arising. Lime juice had been substituted on occasion, a change which could not have altered the effect to any great degree since the pH of either lemon juice or lime juice is approximately 2.2. The most extensive loss of dental structure was confined largely to the upper anterior teeth.

highly beneficial improvement in the diet, for citrus fruits are a relatively cheap, rich and convenient source of vitamin C. However, some habits and methods related to use of citrus fruits apparently have resulted in definite destructive effects on the teeth.

Persons in whom destruction of dental substance, presumably by lemons, has been observed consist mainly of those who have sucked lemons and those who have taken lemon juice in water as an intended therapeutic measure (fig. 1). The practice of sucking lemons can produce marked defects on the labial surfaces of the upper anterior teeth. Fortunately occurrence of such cases is not frequent and, therefore, relatively unimportant. By far the most insidious and prevalent way of taking lemon juice in cases in which destruction is found is the use of interval feedings of the juice in water as an intended therapeutic measure. This solution is taken most frequently immediately on arising in the morning.

It is probably among persons who are seeking medical service and particularly among those who are suffering from a chronic illness, that the largest number of drinkers of lemon juice may be seen. Use of lemon juice was most common among persons who were suffering from rheumatism according to results of the study referred to in the preceding paragraph. The juice also was used for treatment of constipation, to prevent and relieve colds and, occasionally, as a tonic. In some instances it was used as part of a reduction diet; in this event, the juice most often replaced entire meals.

In most instances patients were aware of the high vitamin C content of lemons and desired an adequate intake of that vitamin.

In the cases studied the degree and rapidity of decalcification undoubtedly varied from person to person even though the lemon juice was taken in like quantities and under similar conditions. A marked degree of decalcification was observed in the teeth of some individuals who had used lemon juice for a few months only, while in contrast, in other cases the teeth had undergone less decalcification following use of this juice for more than a year. This variation may be due to differences in amount and buffer capacity of saliva.

It seems, therefore, that marked dissolution of dental structure may occur as a result of drinking lemon juice, particularly if the juice is taken daily and at times other than with meals. In a few of the cases studied lemon juice had been prescribed by professional persons; in some it had been taken on advice of nonprofessional persons; in the majority of cases, however, its use had been begun as a result of reading advertisements which advocated drinking lemon juice. It is a concern of everyone who deals with diet that there be adequate intake of vitamins, including vitamin C. It is obvious, however, that an adequate amount of vitamin C can be had without resorting to improper use of lemon juice. In view of its harmful effects on the teeth its use as a daily drink in any appreciable concentration should be discouraged.

THE REDUCTION OF ORAL LACTOBACILLUS ACIDOPHILUS COUNTS BY THE PERIODIC RESTRICTION OF CARBOHYDRATE

by PHILIP JAY, D.D.S., Ann Arbor, Mich.

Condensed from Am. Jour. of Ortho. and Oral Surg., March, 1947.

There is still considerable disagreement among investigators concerning the relative importance of constitutional and environmental factors in

the aetiology of dental caries. Emphasis on systemic factors carries the implication that dental caries is a manifestation of a disturbed mineral

metabolism which results in deficient tooth structure. The metabolic disorder is usually ascribed to a deficient diet or to a disturbance of the endocrine system.

The environmentalists claim that dental caries is essentially a bacterial disease and that its treatment must be directed against the activity of the oral acidogenic microorganisms. Because of this divergency of opinion among investigators, clinicians and public health educators are wont to conclude that the aetiology of dental caries is still obscure. This attitude has resulted in the widespread teaching that the cause of dental caries is unknown but that it can be prevented simply by safeguarding the nutritional state of the body generally. This idea has permeated most dental health teaching during the past twenty years. It is included in practically all elementary school physical education material, and scarcely a radio address on nutrition fails to include a casual remark to the effect that an adequate milk and vitamin intake will build and maintain good bones and teeth. "Good teeth" to the layman means caries-free teeth. The American public has responded wholeheartedly to this type of indoctrination, as is evidenced by the huge sale of mineral-vitamin preparations and the heavy consumption of milk. As a result, there has been a measured improvement in general nutrition, but the prevalence of dental caries has increased. From a dental standpoint, this educational technique has been not only ineffective but actually harmful.

In studies conducted at the University of Michigan it was found that dental caries activity was not related to the adequacy of the diet, but rather to its sugar content.

It was previously reported by Jay

that lactobacillus counts could be reduced not only by the total abstinence from the use of sugar but also by the periodic restriction of carbohydrate in the diet. Few people are willing to forego the use of sugar in a permanent dietary program, but the chance that dietary restrictions for a few weeks will provide protection for from six months to several years is less disheartening. Preliminary studies have indicated that oral lactobacillus counts drop precipitously when the daily carbohydrate intake is limited to approximately 100 grams. Such a diet does not include sugar, bread, potatoes, and the higher carbohydrate fruits and vegetables. It resembles closely the diet formerly used for the treatment of diabetes in the preinsulin era. The procedure is unpleasant and often arduous. After a two-week period on this regimen, all carbohydrate, with the exception of free sugar, was reinstated and the lactobacillus counts remained low in approximately 80 per cent of the patients. They were then permitted to include sugar in desirable amounts with one meal a day for a two-week period, and it was found that the lactobacillus counts remained low in 70 per cent of them. These fortunate patients were then allowed to return to an entirely unrestricted diet, and 80 per cent of them continued to have low lactobacillus counts.

It seems now that these periods of comparative immunity may be induced at will by a drastic reduction in carbohydrate intake for short periods of time.

The nature of this transformation is of academic interest. From the clinical viewpoint, it provides a method whereby caries can be controlled in many individuals with abnormally high caries activity.

"Be kind for every man you meet is fighting a hard battle".

"It is all right to drive the nail home but don't split the board".

PENICILLIN: ITS USE AND POSSIBLE ABUSE

by WILLIAM S. HOFFMAN, M.D., Ph.D., Chicago.

Condensed from Jour. of A.D.A., Jan. 15, 1947

Penicillin has been called the miracle of modern medicine. But it is a lopsided miracle. It can cure lobar pneumonia but cannot touch the common cold. It can save the lives of patients with what was previously fatal septicaemia but it can do nothing for colon bacillus pyelitis. It can arrest gas gangrene and syphilis but is ineffective against bacillary dysentery. In other words, penicillin, though a remarkably effective therapeutic agent against a variety of serious infections, is by no means a panacea for human ailments.

The dramatic clinical success of penicillin does not lie so much in its destructive action on a great variety of bacteria. The sulphonamides as a group are probably as effective in just as great a group of organisms. Penicillin's success results in good part from the fact that it is so innocuous. There is so little danger in its use. Whereas the use of the sulphonamides is always attended with the danger of complications as serious as the disease being treated, such as blockage and destruction of the kidney tubules, liver damage, destruction of blood cells, and generalized anaphylactoid reaction; the worst toxic reactions that have been reported from the use of the more purified penicillin have been cases of severe urticarial dermatitis. Yet in this innocuousness lies the real clinical danger of penicillin, for it is so easy and safe to use that it can be employed without regard for the correct diagnosis and the proper dosage, and with a neglect of the well-established general principles of medicine, dentistry and surgery in the adjuvant management of disease.

At room temperature, penicillin solutions are completely destroyed in four to six days. At 0° C., solutions may be kept for several weeks. In the dry ampule form, or the tablets or cap-

sules, it is stable probably indefinitely if kept in a refrigerator and if not brought in contact with moisture.

Where high blood levels are required for a long period of time, continuous intravenous drip appears to be the preferred method of administration. Two to five hundred thousand units is dissolved in 2 litres of either physiologic saline solution or 5 per cent glucose solution and administered at a rate of 20 drops a minute over the whole 24-hour period.

When penicillin is given by mouth, some or all is destroyed by contact with the hydrochloric acid of the gastric juice. However, when doses of 100,000 units or more are used, a sufficiently great portion of penicillin is absorbed to produce therapeutic levels in the plasma. We have found that if a priming oral dose of 200,000 units is followed in an hour by a dose of 100,000 units, the plasma levels achieved during the next two hours is on the order of 0.25 units per cubic centimetre, and that even for the next two hours there is usually from 0.03 to 0.06 unit per cubic centimetre. These findings would indicate that doses of 100,000 units every three or four hours would give therapeutic concentrations of penicillin in the blood capable of arresting most of the infections by organisms sensitive to penicillin.

A new method of administration of penicillin has attained a justifiable popularity. It is the use of a suspension of a powdered penicillin in a mixture of peanut oil and beeswax, first devised by Romansky.

Just as in the case of the sulphonamides, bacteria sensitive to penicillin can become resistant if grown in concentrations of penicillin too small to kill the bacteria. This phenomenon has been demonstrated beyond doubt in the test tube, but the evidence for

it *in vivo* is not yet certain. However, most investigators believe that it can happen.

In the realm of dentistry and oral surgery, favourable results have been reported in the treatment of gingivostomatitis caused by Vincent's infection. Both systemic and topical use of penicillin have been successful, more rapid results being accomplished with the former.

In the treatment of alveolar and apical infections, the general opinion is that local treatment is not particularly effective.

The important therapeutic principles in the use of penicillin are the following; (1) the invading bacteria must be sensitive to penicillin; (2) the amount of penicillin given systemically must be sufficient to produce a therapeutic level for the particular micro-organism; (3) the intervals between doses must be small enough to prevent the disappearance of penicillin from the blood stream for any considerable time; and (4) the treatment must be continued for a long enough time to prevent a resurgence of the disease.

Many physicians no longer use 10,000 units as a dose for any treatment of an adult. They prefer 20,000 units every three hours for milder cases and from 30,000 to 50,000 units every three hours at least for the first 24 hours for the severe cases. Other things being equal, these elevated doses are in line with good therapy.

In the use of oral penicillin, small doses are futile. Occasional or sporadic or momentary topical application is of insufficient value. If the required continuity is difficult to maintain, systemic penicillin therapy should be utilized.

As Fleming has stated, it would be strange indeed if the first antibiotic discovered should prove to be the best. Undoubtedly, there will be other antibiotics, some that may supplant penicillin, others merely to supplement it.

If, from the present prolific and extensive investigations in the field of antibiotics, an innocuous substance is developed which is effective against all infections when given by mouth at intervals of eight hours, it will be "a consummation devoutly to be wished."

629 South Wood Street.

VITAMIN B₁ DEFICIENCY

Condensed from Science, March 7, 1947.

Chronic vitamin B₁ deprivation in litters of dogs can affect social dominance as measured by biting without retaliation, the order in which animals go to the food pan, and the relative or absolute immunity from attack by other animals in the group.

It was found in connection with another study in 1941 that social hierarchies existed in each of five litters of puppies. In one litter of four males and one female, the least dominant animal, a male, was so severely bitten and so regularly driven from the feeding pan that he was isolated in a separate cage and given a special diet which included milk and raw beef. The other animals had earlier been

placed on an exclusive diet of water, canned dog food, and a type of dry dog chow. After three weeks the isolated animal was again placed in the cage with his littermates with the result that he reversed his previous social position and became the dominant animal of the litter after several fights with each of his littermates.

After a series of B₁ injections, a number of fights ensued, and the previously dominant male resumed his ascendant position in the social hierarchy. The male which had originally been lowest and, after the special diet, highest in dominance ended as third highest in the social group of littermates.



Editor: M. H. GARVIN, Winnipeg

Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:

D. T. Waye, Charlottetown

QUEBEC:

E. T. Bourke, Montreal

ALBERTA:

H. L. Freeland, Calgary

NOVA SCOTIA:

Warren C. Oxner, Halifax

ONTARIO:

T. R. Marshall, Toronto

SASKATCHEWAN:

L. D. Haselton, Saskatoon

NEW BRUNSWICK:

John E. Edgecombe, Saint John

MANITOBA:

J. F. Morrison, Winnipeg

BRITISH COLUMBIA:

H. M. Cline, Vancouver

Editorials

SPECIALIZATION

Recently a prominent manager of a Dental Supply Depot said to the writer, "In my opinion the private practice of Dentistry is through." Be this as it may, of course, we must admit that unless the government steps in and changes things, private practice will continue for some time yet and no doubt this manager would agree. But the pendulum is swinging and swinging fast towards group practice. This trend is particularly evident in medicine and dentistry will follow. Medical groups are springing up everywhere and are proving successful.

Professional leaders are becoming impressed with the necessity of rendering adequate service to a much larger percentage of the population and methods are being considered as to how best to accomplish this; how to reduce dental costs, practise more efficiently and so meet the needs of this great mass of humanity who shun dentists because of fear and expense.

There are many approaches to this problem but one is through group practice which is the most economical way of conducting dental practice. Reception room facilities, x-ray equipment and certain office personnel etc. are shared. The actual operative technique is speeded up and controls automatically come into force which are impossible in private practice.

I shall have more to say about Group Practice later but at present I would like to point out that men in groups tend to specialize and yet these men can never qualify as registered specialists because while they may give ninety percent of their time to their so called specialty, they cannot give one

hundred percent and serve properly either the group or the public they seek to serve.

To illustrate one might cite the case of a periodontist who is working on a patient requiring the extraction of a loose lower first molar, the filling of a small sensitive buccal cavity in the second molar and surgical treatment of the gums surrounding the remaining teeth on that side. Is it not in the interests of the patient that all these operations should be completed at one time under one application of a local anaesthetic by the same operator? Of necessity, these problems will arise and it is not fair to the patient to insist on two injections by two different dentists. Even in a group the exodontist might be in the middle of a difficult third molar operation when this problem arises.

In a group one of the greatest advantages is that of consultation. How often does an exodontist practising by himself extract a tooth or teeth because some dentist who knows little about periodontia requests that these teeth be removed; or how much does the average exodontist know about the possibility of saving these teeth by periodontal treatment? It is the patient who suffers. Or again, a dentist sends a patient to a periodontist for treatment but the restorative work being done by this dentist is most unsatisfactory. The periodontist may do his best but it is a second best and again the patient suffers.

In other words, this question of specialization requires investigation. When a man must agree to limit his practice one hundred percent to his specialty before he can be registered as such, ideals have to be thrown out of the window. For many years I have limited my personal practice, in a group, to the diagnosis and treatment of periodontal conditions. I consider myself as much a specialist as if I agreed to limit my practice exclusively to this field, but because it would not be in the interests of my patients nor of the group, I would not dream of requesting registration as a specialist on the one hundred percent basis. I see many patients in a day. Often a day or days will pass when I do nothing but diagnose and treat periodontal conditions. Then again, I may extract some teeth or insert some simple fillings if it is in the patients' interest that this should be done.

My contention is that any system of specialization which is not in the very best interests of the patient is a system that sooner or later must disappear.

M. H. G.



AID TO CHINA

Dr. R. Gordon Agnew, so well and favourably known to Canadian dentists, is making an appeal to the members of our Canadian profession to help in the "Canadian Aid to China" campaign.

The "mother" dental school in China was founded by Canadian dentists, and Western personnel is purely Canadian. This school is in need of

help and China with its 400 dentists to serve 450,000,000 people is also in need of help.

Dr. Agnew is soliciting our support in providing two mobile dental clinics for use in China to be attached to the Faculty of Dentistry at the West China Union University, a gift which will serve great numbers of the Chinese people, when health is seriously affected by dental disease.

Dr. Agnew earnestly desires, also, any extra dental instruments and supplies, which can be spared, which should be sent to "Canadian Aid to China", 371 Bay St., Toronto 1. Cheques also should be made payable to the "Canadian Aid to China".

At the last Governors Meeting of the Canadian Dental Association this project was heartily approved. We have our part to play, as dentists, in building a better international understanding, all of which is a rung in the ladder of world peace, so act now and let us help China.

M. H. G.

BOOK REVIEW

Temporomandibular Arthrography, by Flemming Norgaard. Published by Einar Munksgaard Copenhagen 1947. Translated from the Danish by Hans Andersen, M.D. 188 pages and 31 plates (132 figures); price Danish Kr 24, approximately \$5.00 Canadian funds.

The author states in his summary that this volume is "an account of a method for roentgenographic examination of the temporomandibular joint with the aid of the injection of a contrast medium into the joint".

The method was developed because in the diagnosis of temporomandibular arthrosis the ordinary type of radiographic examination does not demonstrate the presence of lesions in the structures of the joint as accurately as by this technique. Often the usual type of radiograph shows only changes in the position of the joint according to the author which are not conclusive evidence of lesions of the joint itself.

He describes fully the technique of injection of the contrast solution known as periarthrodial as to the amounts to be injected into the upper and lower joint cavities and the most suitable sites of injection. This requires accurate technique in order to prevent pain in the joint and to produce the best results from a radiographic point of view.

Included in the text are case histories of

over 100 cases which were examined and treated and the author reports reliable results in most of the cases.

He points out that by this method of arthrography he has been able to select the cases for both conservative treatment and for surgery much better, thereby avoiding protracted treatments which were not always effective in eliminating these joint conditions.

He lists the usual symptoms of arthrosis as reduction in mobility of the joint on opening the mouth, pain or crepitation in the joint during mastication, trismus and condylar movements asymmetrical with deviations to one side or the other.

Treatment followed out by him was of two types, conservative treatment by means of diathermy and operative treatment by arthrotomy for cases in which there was detachment of the meniscus or where the meniscus was adherent to the condyle. In most cases adjustment of the occlusion by grinding was carried out and by the construction of prosthetic appliances in some cases.

The author believes that arthrography could be used effectively for a more thorough study of the appearance and action of the temporomandibular joint and add to our knowledge of jaw movements.

The plates included in this book illustrate

very clearly the outline of the joint and its structures and there are also diagrams showing the radiographic technique employed.

Studies of a similar nature as this one have been made by various British and American

investigators. This volume, however, is the only one of which the reviewer has knowledge, which is devoted entirely to the subject of temporomandibular arthrography.

R. J. GODFREY

ROYAL CANADIAN DENTAL CORPS NEWS

Staff Courses in the R.C.D.C.

The policy of taking advantage of all available courses in the RCDC is followed. Lt. Col. G. B. Shillington attended a 6-weeks course in prosthetic dentistry at the University of Toronto. Lt. Col. K. M. Baird, OBE, has completed a post-graduate course in operative dentistry at the University of Alberta. Both

these officers will be employed at the RCDC Technical Training Wing in Ottawa.

Major B. P. Kearney, MBE, ranked first and Capt. A. W. Brusso third, in a professional (military) advancement course conducted at AHQ for officers up to and including the rank of Major, who had not formerly taken a staff course.

CANADIAN DENTAL ASSOCIATION NEWS

Professional Acts—Saskatchewan

An article appearing in *The Saskatchewan News* (Government Publication) dated 14 April '47 contains information respecting developments which have occurred in the study of the professional acts by the government.

The Law Amendments Committee of the Legislature said in its report to the legislature:

"Professional associations and societies should retain the autonomy they now enjoy under the Professional Acts, but the exercise of powers delegated by such acts should be subject to certain legislative safeguards in order to protect the interests of individual members of the professions, and the public interest generally."

The committee was of the opinion that the legislature itself had a duty to perform in this connection. Since the legislature delegated certain powers, it should have the right to satisfy itself that by-laws, rules or regulations passed by professional bodies do not exceed the delegated or referred powers, or adversely affect the public interest. In this respect certain recommendations were made to the legislature including:

1. The setting up of a "Select Standing Committee on Delegated Powers".
2. An inter-sessional committee to continue investigations into the status of professional bodies.

3. The filing of certified copies of by-laws, rules and regulations together with relevant codes of ethics of all professional associations with the Provincial Secretary annually.
4. Control of the membership of such bodies should be left with the council or governing body of the association concerned subject to certain safeguards respecting discipline when proceedings taken should be reported to the Provincial Secretary.
5. A companion register of all members should be kept by the Provincial Secretary.

These recommendations are vastly different from the ones contained in the draft bill reported previously and are not very different in most respects from the conditions now existent. The legislature in each province has always possessed adequate means of inquiry into any action taken by the professional bodies. The real question at stake was the matter of professional control and it is now stated in the report that the professions should retain their autonomy.

Council of Dental Education

A sub-committee of the Council on Dental Education met in Toronto on April 7 to study the matter of the creation of a National Dental Examining Board and will make a pre-

liminary report at the forthcoming Annual Meeting.

Ladies' Auxiliary, London Dental Society

The following letter has been received by the Association:

To DR. GULLETT, *Sec. Canadian Dental Assoc.*

Please find enclosed a cheque from the Ladies' Auxiliary to the London Dental Society for One Thousand and Forty-eight Dollars and fifty-five cents (\$1,048.55), to be used for Dental Research.

*Signed (MRS. G. C.) BERNICE SQUIRE,
Sec.-Treas.*

The action of the Ladies' Auxiliary of the London Dental Society is very greatly appreciated. This contribution has been deposited in the special research fund of the Association and will be used by the Research Committee in furthering the cause of Dental Research.

Committee on Publications

The Committee on Publications met in Toronto on April 21. The Committee is faced with the problem of rapidly rising costs of publication and consideration was given to ways and means of overcoming the difficulty. Certain recommendations will be made at the Annual Meeting in June. The Committee is desirous of increasing the size of the Journal and making other improvements which are difficult under present conditions as future costs are unpredictable.

Convention at Digby

A maximum attendance at the Convention is assured. All possible accommodation will be fully taken up for the meeting according to present indications. The Program Committee, through an abundance of hard work have developed a splendid program.

NEWS FROM THE PROVINCES

ONTARIO

The Eighteenth Annual Convention of the Ontario Dental Association

Once again attendance figures soared to a new high as Ontario dentists assembled for their annual meeting in Toronto. General arrangements under the direction of Dr. E. A. White were good and the program, under convention chairman Dr. L. M. Grose, was planned and diversified to be of helpful interest to all who came. The timing and management of the many educational features, indeed every function, was indicative of capable leadership. It would be difficult to single out any one for special mention as every officer seemed devoted to his task. However, president Dr. G. V. Tario brought honour upon himself by the dignified yet genial and friendly manner in which he conducted all proceedings.

In the past number of years, delegates have been encouraged to arrive for the convention on Sunday immediately preceding opening day. This custom was followed and an informal evening of music was arranged to provide an opportunity for sociability and meeting of friends. This year the party was again under the direction and sponsorship of the Dental Alumni division of the Alumni Fed-

eration of the University of Toronto with Dr. John A. Bothwell as chairman. Five hundred or more dentists with their ladies and friends gathered to enjoy a very high class concert which reflected the good taste of Dr. Bothwell's Committee whose members were Drs. Martha Law, President E. A. Grant, W. Breslin and Roy Kerr. This function seems to produce an atmosphere of good fellowship which is conducive to a successful meeting.

The convention program proper got under way at the opening Luncheon. Many guests were present including Mayor Saunders, President Dr. Sidney Smith and Chancellor Dr. H. J. Cody of the University of Toronto, Dr. Arnold Mason, dean of the Faculty of Dentistry and Dr. Don. W. Gullett, Sec'y-Registrar of the Royal College of Dental Surgeons and Secretary of the Canadian Dental Association. The feature of the luncheon, of course, was Dr. Tario's presidential address. He seemed to epitomize the thinking and attitude of most of the lecturers and clinicians on the program when he said, "Not in its ability to construct aesthetic restorations, and replace teeth but in its potential ability to prevent and control diseases of the oral cavity, will dentistry establish itself as a great and true health service". Dr. Tario did not belittle restorative dental service with all its

refinements for good aesthetics but he seemed to imply it was not an end in itself but rather a service made necessary because too often the destructive processes of dental diseases are not intercepted in their earlier stages. People are more conscious today of their need of dental care because of the amount of post discharge dental service required in rehabilitating veterans, because of persistent dental health education promoted by dental public health groups and many other reasons. It was President Tario's opinion that demand for dental services would not diminish from present levels but might even increase. In support of this he mentioned that 40,000 servicemen were married outside of Canada during the war and that from these marriages 20,000 children were born. This immediate influx of 60,000 people, which if coupled with a mooted increased immigration, is indicative of a rapidly increasing population. These facts prompted Dr. Tario to favour the training of dental hygienists who he believed would place further emphasis on prophylactic service and at the same time relieve the dentist for other needed services.

To further emphasize the importance of the preventive and control approach in the treatment of dental diseases, there were a number of items on the program.

Dr. R. E. Valin, chief surgeon of the Ottawa General Hospital gave a paper on Malignant Growths. "Cancer of the Mouth," he said, "May be cured in almost every case if treated in its early stages" and he made a plea for co-operation of all dentists to become Cancer conscious and assist in early diagnosis of Malignant disease.

Dr. Armacost Cox, professor of preventive Dentistry, Toronto, gave a lecture on the "Relationship of diet to caries immunity in disease and in health" dealing in particular with the newer knowledge of proteins in the diet. He suggested that it appears from present indications people who eat a high protein diet are more resistant to disease and also pointed out that diabetic patients on a low carbohydrate and high protein diet have less caries than average people.

The Dental Public Health Committee sponsored a breakfast meeting which was attended by over 100 interested delegates to hear a symposium entitled "What is ahead for Dentistry", Chairman MacGregor is quoted as stating "The keynote in dental science for

the past 100 years has been restorative dentistry but for the next century I hope emphasis will be placed on prevention with continued interest on restorative service."

At the public health luncheon, Dr. Harold Mitchell, assistant professor of preventive medicine, New York University College of Medicine was the guest speaker. Some points in his address were—"There is a great upsurge of interest on the part of teachers and parents in dentistry for children; the Medical profession have found it is a wrong principle to do things for people and neglect to teach them how to do things for themselves; people must be taught to desire dental care and pay for it; if the teacher and nurse do health education, a genuine class interest is built up among the children and this interest goes into the homes of the children. Dr. H. S. Thomson contributed a fine note as he thanked Dr. Mitchell for his address. He said "To build good dental health for the adult, you begin with the child. Begin early—the physician does it, the religious worker does it and why not the dentist do it too? The Dental Public Health Committee also carried out unique publicity for a newly designed standard examination chart for use in all dental surveys for children. The Canadian Red Cross Society is recognizing the value of dental health education and early dental care as a general health measure by its interest in dentistry. The society has undertaken two projects—an educational and survey project in Welland-Crowland area in South Western Ontario under the direction of Dr. S. L. Honey, and a travelling clinic in Georgian Bay-Muskoka area under Dr. Murray Buchman during the present summer months.

Save the teeth in health and optimum function seemed to be the basic theme emphasized throughout the convention by nearly all speakers. Dean-elect Dr. R. G. Ellis gave leadership in preventive practice in his discussion entitled "*Recognition of Potential Dental Cripples*" in the early changes from the normal in the mouth of the child. The Orthodontic section group of papers for those interested in this phase of dentistry followed the same trend, thus!—

"*The Detection and Diagnosis of Dentofacial Anomalies in General Practice*" by Dr. George R. Moore; and "*Some Pre-*

ventive and Corrective Orthodontic Measures," by Dr. Edward A. Cheney, both of Ann Arbor; *"The Teeth in Function,"* by Dr. C. H. M. Williams and a concluding outline of the *"Orthodontic Program for Michigan State Department of Health,"* by George R. Moore.

Further lectures supporting the general motive were *"Oral Manifestations of Disease in Child Life and the implications on Growth and Development,"* by Dr. Paul Losch of Boston; a number of presentations dealing with periodontal problems in diagnosis and treatment by Dr. Rowe Smith of Texas, Dr. H. K. Box, Dr. W. J. Linghorne, Dr. H. M. Robb, all of Toronto, and by Dr. P. G. Anderson, also of Toronto, who discussed the use and usefulness of splints in preserving periodontal structures.

Dr. George Hare's lecture dealing with retaining the non-vital-tooth in health through good *"Root Canal Therapy"* and Dr. J. H. Johnson lecture-clinic on the application and technique of *"Root Resection"* as conservative treatment especially for young people were indicative of the changing trend in treating the pulpless tooth.

It is impossible to include even a mention of all clinics and lectures in such a comprehensive program as provided for such a large convention. It must be stated however that there were many able and willing contributors who spent time, energy and their own money to pass on to their colleagues helpful ideas so that dental science would continue to make progress. In connection with this thought the dental dealers and manufacturers deserve a special thank you, for their trouble, and willingness to assist in financing the meeting and for arranging the excellent exhibit of equipment and materials. The Dental Nurses' Alumni and the Dental Nurses' and Assistants' Association must not be forgotten, although meeting in their own convention, yet their representatives gave some very fine table demonstrations which served the useful purpose of passing on good ideas in office procedure.

The convention of course could not be complete without its fun and entertainment. The President's dinner and dance was outstanding as to arrangements and program; not a single item of detail seemed to escape the

attention of Mrs. R. P. Lowery and her capable committee of ladies. Further a supper party especially arranged on an earlier occasion in honour of out of town ladies was a very pleasant function. This party was under the able direction of Mrs. Harold Skilling. The entire ladies' committee are indeed entitled to sincere congratulations for the high calibre and success of these functions.

Convention time is growing ever more popular for many class reunions and fraternity parties. This year the class of 2T2 celebrated its quarter century and what a time they had. The members were loud in their praise of the committee directed by Drs. Stewart Holmes and Ken Harris for arranging a memorable evening. Reminiscing of undergraduate days is a grand evening's fun especially when stimulated by a good dinner and sprightly entertainment.

In concluding this brief review those who were in attendance will realize that many worthwhile items have not been mentioned; those who for many reasons did not attend may think privately "I guess I should have been there". Make a resolution now for 1948. The Ontario Dental Association is bigger this year than ever in its history yet slightly over one-half the dentists in the province were at the meeting. Being at the convention is always a profitable experience and your help is needed if only as a supporter. See you next year.

T. R. M.

Royal Canadian Dental Corps Association Inaugurated

Ex members of the Corps attending the Ontario Dental Convention gathered for a luncheon meeting on May 20 to discuss plans for a postwar civilian organization. There were 245 delegates from all parts of Ontario in attendance including Col. Elgin Wansborough, M.M., O.B.E., of Ottawa, who is director-general of dental services for Canada, Lt. Col. L. A. Kilburn of Hamilton, Officer Commanding Reserve Dental Corps for M.D. No. 2 and Col. D. S. Coons who was director-general of dental services at the end of the war.

Officers of the new association are Pres. Dr. E. T. Guest, Toronto; Vice Pres. Dr. C. L. Strachan, London; Sec'y. Dr. R. C. McLaughlin, Paris; and Treas. Dr. Hector Thompson, Hamilton. In addition the following executive

committee was appointed—Drs. C. S. Slack, Picton, W. L. Simon, Hamilton, F. A. Flora, Toronto, Murray Campbell, Chatham, and E. G. Dore, Hamilton.

Membership in the society is open to all ranks who served in the Corps and reunions will be an annual event.

Dental Nurses Alumnae Convention

The Fourteenth Annual meeting of this Association was a huge success. It was held in conjunction with the Ontario Dental Association Convention at the Royal York Hotel.

Registration of the Nurses preceded opening ceremonies which were conducted by Miss Barbara Booth, President of the Alumnae and Miss Anne Kirkland, President of the O.D.N. & A.A. A welcome was extended by convention convener Mrs. Margaret Carscadden and Dr. G. T. Mitton. Dr. R. P. Lowery, Dr. Harvey W. Reid and Dr. Harold Shepherd extended greetings respectively on behalf of the Ontario Dental Association, Canadian Dental Association and the Academy of Dentistry.

The first speaker of the session was Dr. W. J. Ross of Kitchener who gave a clinic on "Inlay Technique from the Wax Pattern to the Finished Inlay." Dr. R. E. Valin of Ottawa spoke on "Cancerous Lesions of the Mouth". His main point was that early diagnosis of Cancer is essential to cure.

In the afternoon session Mr. John Murphy of New York, spoke on "Assistance in the Preparation of Dentures." Dr. Rowe Smith of Texas emphasized the importance of proper nutrition and oral hygiene in combatting periodontal disease.

On Tuesday morning we heard a most interesting lecture by Mr. Walter Reske of Rochester on "Radiodontic Helps". Those of us not familiar with the x-ray machine and its operation should have benefitted by this informative talk. Then for something different we were taken for a tour through the Hotel from top to bottom.

One of the highlights of the Dental Nurses' Convention was our Reunion Luncheon. We were very happy to have such a large turn out. Mr. O. L. Pearson spoke to us on the work done in Recreational Centres organized by

the Y.W.C.A. and Y.M.C.A. He displayed many attractive articles made by men and women at these centres.

Wednesday morning Dr. C. H. M. Williams spoke to us on "Dental Assisting in Periodontia". His lecture with slides on Periodontal disease was very comprehensive and was based on a group of questions commonly asked by the average patient and the answers which the Dental Nurse might give regarding Periodontal disease.

Dr. Eli Alexander of Detroit who has done much research on dental Amalgam explained the proper procedure in mixing this material and the use of the rubber dam in placing these fillings.

Wednesday evening a reception was held for graduate Dental Nurses, the executive was gratified with the large attendance. Dean A. D. A. Mason and Mrs. Mason, Dr. R. G. Ellis and Dr. Howard Graham were among the guests. Dr. Graham presented prizes to Miss Jean Selkirk and Miss Barbara Brown for their table clinics and Miss Innis Scherer was awarded a consolation prize for her "Hobby Centre." Miss Flo. Stevens, Miss Gladys Whitfield and Miss Dorothy Deering deserve honorable mention for their fine efforts.

A very special mention should be made of the Executive. Their responsibilities have been many, and they deserve "cheers" for making our Convention for 1947 a success.

ANNE POLLOCK

Board of Directors Royal College of Dental Surgeons of Ontario

President: Dr. Harvey W. Reid, Toronto

Vice-President: Dr. H. L. Field, Hamilton

Reg. Secretary: Dr. Don W. Gullett, Toronto

Executive Committee: Dr. H. L. Field, Dr. G. H. Campbell, Dr. E. W. Paul, Dr. S. J. Phillips, Dr. H. W. Reid

Discipline Committee: Dr. G. H. Campbell, Dr. H. L. Field, Dr. J. F. Giffin, Dr. E. W. Paul, Dr. R. O. Winn

Representatives to the Canadian Dental Association: Dr. H. W. Reid, Dr. J. F. Giffin, Dr. S. J. Phillips, Dr. G. H. Campbell

Representative to the Dominion Dental Council: Dr. G. H. Campbell.



GRADUATES IN DENTAL NURSING, UNIVERSITY OF TORONTO

The following are the members of the Class in Dental Nursing: Miss V. L. Brandes, New Westminster, B.C.; Miss M. H. Chesney, Wolseley, Sask.; Miss M. D. Farquharson, Gormley, Ont.; Miss M. D. G. Fasken, Toronto; Miss M. W. Fleet, Edmonton, Alta.; Miss B. C. Fowler, Toronto; Miss G. E. Gauntlett, Toronto; Miss M. F. Gorman, Sault Ste. Marie, Ont.; Miss M. J. Jay, Toronto; Miss P. M. Jones, Hamilton; Miss J. F. Kines, Roblin, Man.; Miss J. M. Lewis, Windsor; Miss C. G. Lohne, Sheet Harbour, N.S.; Miss T. R. McGowan, Bridgetown, N.S.; Miss D. M. Mathieson, Vancouver, B.C.; Miss M. E. Pennington, Windsor; Miss D. O. Powell, Toronto; Miss E. L. Spence, Toronto; Miss H. J. Stewart, Yorkton, Sask.; Miss E. W. Warren, Vancouver, B.C.; Miss G. E. Weixl, Saskatoon, Sask.; Miss I. M. White, Grandview, Man.

Graduation in Dental Nursing, University of Toronto

Twenty-two young women in the Class in Dental Nursing expect to graduate from the University of Toronto in June, 1947. The Class is unique in that almost all the members, as well as having the required qualifications to be enrolled in the Class, have been in various branches of the Canadian Armed Services, and a few have had practical experience with the Canadian Dental Corps. Eight of the young women have served with the Wrens, five with the Royal Canadian Air Force, two with the Canadian Women's Army Corps, one with the St. John Ambulance, and four with the Canadian Dental Corps. They are, therefore, slightly older on the average than members of other graduating groups and should be

well qualified for the duties of dental nursing.

The course gives the students a good training in the fundamental subjects which are the background for giving intelligent assistance in a dental office. All have a good training in office procedures and dental laboratory techniques as well as in chairside and surgical assistance. With a minimum of help these graduates should readily adapt themselves to the routine of the individual dental office.

It has been a notable fact that the course has attracted students with a good academic and cultural background and after graduation their employment in dental offices has had a far-reaching effect in raising the standard of dental office assistance throughout the Province.

Although most of the members of the class

prefer to remain in Toronto, some would be interested in positions in Windsor or Detroit, Winnipeg or Vancouver, or Montreal or any eastern city. Further information may be obtained by writing to the Dean, Faculty of Dentistry, University of Toronto, 230 College Street, or by telephoning his Secretary at Midway 9060.

Elgin Dentists Honour Dr. Ellis

Dr. R. G. Ellis, newly appointed dean of the Faculty of Dentistry, University of Toronto, was honoured at a meeting of the Elgin County Dental Association on April 12.

Dr. Ellis was presented with a painting by W. St. Thomas Smith. Presentation was made by Dr. Harold Dickson of St. Thomas.

Toronto Study Club of Dental Technicians

On April 16, at the Royal York Hotel, Toronto, this club held its annual dinner and election of officers as follows—

<i>Past President</i>	W. Walker
<i>President</i>	J. Tebbutt
<i>Vice-President</i>	C. H. Mellish
<i>Secretary</i>	R. C. Brown
<i>Rec. Secretary</i>	C. Blandford
<i>Treasurer</i>	C. H. Mellish
<i>Hon. Member</i>	C. L. Daly
<i>Executive Board:</i>	E. Allingham; S. Furrice; J. Price; D. Rollaston; F. Sawden; J. Washbrook.

After dinner entertainment was given by Mr. W. Carney through the courtesy of the Bell Telephone Co., showing sound films on shipping on the Great Lakes from Port Arthur to Toronto also a film showing a broadcast of the "Telephone Hour" over N.B.C. the music of which was enjoyed immensely.

C. BLANDFORD

NOVA SCOTIA

Halifax Dental Society

At the March meeting of this Society Major S. K. Oldfield addressed the members on "Treatment of the Pocket in Periodontal Disease".

The paper mentioned three methods of pocket elimination and stressed the fact that generally, pocket formation is a symptom

only, and that the cause must be found to ensure satisfactory results.

Drs. F. W. Johnson, G. A. Chudleigh, and J. McGuigan led the discussion which followed.

Dalhousie Dental Students Society

EXECUTIVE, 1946-1947

<i>President</i>	John F. Burke, '47
<i>Vice-President</i>	Donald C. Steeves, '48
<i>Secretary</i>	William H. MacNeil, '49
<i>Treasurer</i>	Kathleen M. Stack, '50

On March 31 the annual banquet was held in the ballroom of the Lord Nelson Hotel with a large attendance. Dr. A. E. Kerr, President of the University and Dr. V. D. Crowe were guests of the Society. A representative group from the Halifax Dental Society attended.

The dinner committee consisted of William MacMurda '48, and Eric Whyte '49. The Society President, John Burke, was Chairman. During the dinner Miss Kay Stack sang charmingly, accompanied by Dave Peters '50.

The following was the toast list:

To the Graduates, proposed by Don Steeves, responded to by Harry Dubinsky '47.

To the Ladies, proposed by Dr. J. W. Dobson, responded to by Ken Kerr '50.

To Alma-Mater, proposed by Dr. P. S. Christie, responded to by Dr. A. E. Kerr.

Dean W. W. Woodbury introduced the guest speaker, Dr. V. D. Crowe, who told in a most interesting way of the activities of the C.D.A., and its value to the practising dentist.

A vote of thanks was proposed by Con Cusack '47.

BRITISH COLUMBIA

Vancouver and District Dental Society

On May 8 more than eighty members attended the final meeting of this Society at the beautiful Peace Portal Golf and Country Club, thirty miles south of Vancouver, near the American border.

Following dinner, the President, Dr. John Ingledew announced the prize winners. The Ash-Temple Trophy (for low net) was presented to Dr. Morton Hanna by Mr. Ed. Rogers of that company. The B. C. Dental Trophy (for low gross) went to Dr. Dick

Butler, and was presented by Mr. Ted Sinclair. Dr. Alex Dobbins won the Leach Trophy. Several door prizes were presented, as well as prizes for the highest score and the best first and second nines.

The following officers were elected for the ensuing year: President, Dr. Eric Norden; President-Elect, Dr. W. D. McLeod; Secretary-Treasurer, Dr. Ken McWilliams; two new members to the Board of Directors, Drs. Clay Hallman and Wilfred Gallagher.

After the President and Secretary-Treasurer had read their reports, Dr. Jack Chambers of New Westminster presented a gavel to retiring President Dr. John Ingledew.

Vancouver Dental Assistants' Association

On April 14, forty-three members of this Association met to hear Dr. R. W. Bradley, District Supervisor for D.V.A. at Shaughnessy Hospital, give a most interesting and amusing address on "Life in the Dental Corps". This was followed by a discussion of plans for the first B.C. Convention being held in Vancouver in June.

GWEN A. HILLIARD.

Victoria Dental Assistants' Association

On February 3 twenty-six members of this Association met to hear Dr. Alex Gunning, who spent considerable time in the front lines overseas with the C.D.C., speak on "Dentistry Overseas".

Dr. Gunning illustrated his very interesting subject by a series of excellent pictures taken in different parts of Europe and the British Isles.

JEAN FRASER.

SASKATCHEWAN

Moose Jaw Dental Society

On May 8 the dentists of Moose Jaw played

hosts to the dental nurses of the city at a banquet held in the Grant Hall Hotel.

The guest speaker of the evening was Miss Alberta Normandine of the local Regional Health Centre. Miss Normandine gave an interesting address on the status of the dental nurse in the medical profession, her place in the professional life of the dentist and her relationship to the field of Medicine as a whole.

At the conclusion of the banquet the following officers were elected for the ensuing term:

<i>President</i>	Dr. A. E. Chegwin.
<i>Vice-President</i>	Dr. Duff Leask.
<i>Sec.-Treasurer</i>	Dr. L. Hare.

Saskatoon Dental Society

Dr. Foster Murray, the D.V.A. psychiatrist for Saskatoon and District, spoke at the May meeting. His address was very interesting and instructive. He traced briefly the history of psychiatry, cited a few interesting and unusual cases, explained the Mental Health Laws and the application of psychology to dental practice.

MANITOBA

Winnipeg Dental Nurses' and Assistants' Association

At the May 3 meeting of this Association, with the President, Miss Ethel Brown, presiding, the following Executive was elected:

<i>President</i>	Miss Ethel Brown
<i>Vice-President</i>	Miss Kay Hoffard
<i>Secretary</i>	Miss Mary Davidson
<i>Corresponding Secretary</i>	Miss Livingstone
<i>Treasurer</i>	Miss Marilyn Roland
<i>Membership Convener</i>	Miss M. Kitching
<i>Program Convener</i>	Miss Jane MacLure
<i>Social Convener</i>	Miss Marion Smith
<i>Sick & Visiting</i>	Miss Sue McGimsie
<i>Editorial Convener</i>	Miss D. McCulloch

EMPIRE NEWS

NEW ZEALAND

Use of Title "Doctor" by Dentists in New Zealand

This matter has been brought forward in the light of the fact that ten per cent of the dentists on the register in New Zealand hold doctorate degrees conferred by Universities

outside New Zealand, these being merely "passing out" degrees corresponding to the New Zealand B.D.S. The Hon. Secretary has been instructed to write to the Dental Council of New Zealand, suggesting a certain course of action relating to the universal use in New Zealand of the title "Doctor" by dentists.

GENERAL NEWS

Dental Care in U.S.A.

"A dental 'backlog' of aching teeth with 500,000,000 cavities makes national dental health insurance 'impossible,' dentists of New York State were told January 20 at the opening of a three-day 'workshop.' Dr. Harold Hillenbrand of Chicago, general secretary of the American Dental Association, said an estimated 112,000,000 new cavities occur each year among Americans above the age of 6. He added: 'Indications are that all the dentists in the United States are only enough to care for one-half of this "maintenance work" without filling the old ones.'

"A nondentist, Dr. Michael M. Davis, chairman of the Independent Committee on Research in Medical Economics, supported this view. He said: 'Dental needs are uninsurable. The element of insurable risk is obliterated by the enormous demand. There is not enough money nor are there enough dentists to give complete dental care for all. I suggest that we begin with Federal or State programs for children only, in order to raise a new generation of healthy adults. This could best be administered as part of a national program of general medical care.'

"Called to study dental care on a community basis, the workshop conference is scheduled to recommend legislative steps when it closes. The Council on Dental Health of the Dental Society of the State of New York called the meeting, which nearly 100 dentists are attending." *New York Times*, Jan. 21, 1947, per Public Health Economics

Hawaii

"A \$10,250,000 a year compulsory hospital insurance plan, covering about 500,000 residents of Hawaii, is proposed in the final report of the hospital service study commission, which has been mailed to members of the 1947 legislature. The commission recommends that 'the people of the territory, by formal legislative enactment, accept the obligation to participate in a system of organized payment for medical care.'

"The insurance would be financed with a 2½ per cent levy on all wages and income up to \$5,000, to provide hospital care for all cases now handled in general hospitals.

"If the family income is over \$5,000 a year, the plan provides for payment of fixed cash indemnities with the physician charging his normal fee. The difference is made up by the patient. A feature of the plan is that if only one member of the family has an income, all members are eligible for the hospital care insurance."—*Honolulu Advertiser*, per Public Health Economics.

Dental Hygienists

In 1946 there were 16 institutions in the U.S.A. giving courses in Dental Hygiene. For admission one required two years in Liberal Arts while all the others required High School graduation.

The length of the course varied. Six schools graduated hygienists after one year in college. Ten schools required two years. Five schools offered a four year course with a B.S. degree in Education or Dental Hygiene or a B.A. with certificate.

In June 1946, there were 420 students who were graduated. In October 1946 there were 729 enrolled in these various schools.

Dental Student Registration in the U.S.A.

As of October 15, 1946, there were 8,267 undergraduate students of dentistry in the 23 dental schools or colleges in the United States of which 117 were women. Other students taking special courses brought the total up to 10,041 of which 697 were women.

Sodium Fluoride in Drinking Water

An Editorial in the *Journal* of the American Dental Association points out that the artificial addition of sodium fluoride to drinking water to inhibit dental decay among children is still largely experimental and should not be attempted on a universal basis.

It further points out that children living in communities where domestic water supplies naturally contain minute quantities of fluoride salts do have considerably less dental decay than children who use fluorine-free water but that it is not yet known whether the same results can be obtained by adding fluorine artificially to domestic water supplies.

Demonstration experiments which will take

several years to complete are underway but the editorial warns against what it terms "a general and often indiscriminate demand for the fluorination of water supplies before the necessary substantiating evidence has been obtained."

In urging communities to wait for scientific conclusions before fluorinating community water supplies, the *Journal* repeated an earlier recommendation that all dentists apply diluted solutions of sodium fluoride to the teeth of child patients during the course of regular dental treatments.

Such topical application of fluoride salts to the teeth of children have been found to reduce dental decay by as much as forty per cent.

Grant-in-Aid to McGill

The Bristol-Myers Company, manufacturing chemists, has announced a grant-in-aid to McGill University, Montreal, to enable it to establish a Research Institute of Bio-Physics within the Department of Medicine of the McGill University Faculty of Medicine and the establishment of fellowships therein. In referring to the grant at a meeting of the McGill Associates, Dr. F. Cyril James, Principal and Vice-Chancellor of McGill University, said in part:

"Another project of far reaching interest which will be housed in the Donner Building is the Research Institute of Bio-Physics under the direction of Dr. Kenneth Evelyn. This Research Institute, operating within the Faculty of Medicine, has been made possible by a generous grant from Bristol-Myers Company of New York City which will cover the cost of a comprehensive five year program of investigations in the field of medical radio activity and cardiovascular research. The Bristol-Myers grant will make it possible to assemble a team of five or six outstanding scientists to work under the direction of Dr. Evelyn, whose brilliant record at McGill, in the Royal Canadian Air Force and at Harvard offers high promise of significant results.

"This cardiovascular research project will place special emphasis on hypertension, a disease that is said to affect almost 40% of all individuals over the age of 50 and to be the primary cause of death in the case of almost 15% of our population.

"Hypertension is an ideal disease for the direct clinical application of biophysical methods, because the fundamental disease process appears to be a pure functional derangement of circulatory hydrodynamics, which is not associated in its early stages with any known organic disease of the heart and blood vessels.

Geriatrics

In the May 1 edition of the *Journal* of the A.D.A. Dr. J. T. O'Rourke, a member of the Faculty of Tufts Dental School, Boston, points out that the advance in life expectancy to sixty-five years or more requires that more attention be paid to dental decay, particularly among children. "At present", he said, "life expectancy of teeth is much shorter than that of human beings."

He said that the average child of today will need his teeth 42 years longer than the average child of the 16th century, 27 years longer than those born at the time of the American Revolution, and 17 years longer than those born at the beginning of the present century.

Dr. O'Rourke said that unless increased attention is paid to dental health among children, approximately 40 to 50 per cent of the present generation of children will have no natural means of mastication when they reach the age of 60 years.

"In fact," he said, "It is highly probable that they will lose one half of their natural dentition before they reach the age of 40."

"This is most unfortunate", he continued, "for mastication is quite as important after the age of 60 as at any other time. When it is assumed to have little value in later life, and as a consequence the teeth receive little or no care, nutrition is almost certain to be impaired."

New Dental Directory

A new directory of all dentists in the United States will soon be published by the American Dental Association.

Entitled "American Dental Directory," the new publication will contain an alphabetical listing plus a geographic listing (by states and communities) of more than 70,000 dentists in the United States.

The book will be 8½ by 11 inches in

size and will contain approximately 1,000 pages. It will be published in August.

The directory will be sold at a reduced price of \$10, postpaid from the Central Office of the American Dental Association, 222 East Superior Street, Chicago 11, Illinois, if ordered in advance of the mid-summer publication date.

Public Information

by Sterling V. Mead, D.D.S.,
President, American Dental Association

Programs in the extension of dental health service to more people depend greatly on public information activities, particularly at the local level. An informed public is the greatest ally the profession can have in its campaigns to establish practical dental health programs in each community.

In each state, there should be a carefully planned program of public information. All information media—the press, radio, lecture platforms, pamphlets and health exhibits—should be used to enlist public support to dentistry objectives. Whenever possible, such programs should be directed by a full time executive secretary or a public relations consultant or advisor. Close supervision should be maintained by state officers and authorized committees of the state societies.

Insofar as possible state public information programs should attempt to enlist all dentists in a continuing campaign to disseminate correct information regarding dentistry to the public. Each dentist should be kept fully informed regarding professional activities dealing with the public. Each state should establish a speakers bureau. Talks on dentistry should be encouraged at various public functions, particularly meetings of service clubs, Parent-Teachers Associations, civic organizations and other groups. Summaries of these talks plus announcements of activities of state and local societies should be provided local newspapers and other publications.

Another important phase of any state-wide information program is the use of the radio. All radio stations devote a portion of their time to public service. With the proper type of programs dentistry will find most stations ready and eager to co-operate. It is important, however, that dental programs should be well planned in advance and not set up on the spur of the moment.

There is an almost inexhaustible list of subjects for local radio programs.

In public relations activities dental societies should maintain close co-operation with medical societies. What happens to medicine should be of great concern to dentistry as it will surely happen to dentistry in turn. The two professions have common objectives. Particularly in the matter of national or state legislation should the professions work in harmony. Legislation is almost entirely dependent on public opinion and the public's interests. It should be on the basis of the people's best interests that dentistry take action in support of or opposition to any legislation affecting public health.

Norway—State Medicine

In Norway socially organized medicine or State Medicine assumes a very prominent place.

A person in Norway who falls ill can always count on an opportunity to consult a doctor (general practitioner and specialist) and—if necessary—receive treatment in a hospital. The patient will in most cases be a member of the compulsory National Health Insurance plan which will cover doctor and hospital expenses. If the patient is not insured, he may be financially able to pay the expenses himself, or, if he is not insured and not financially able to meet the expenses, these will be covered by his municipality under the poor law.

In all cases the insured and the self-paying patients have a choice of doctor. The same is the case with the poor on relief in the larger cities, while in the rural areas the poor are usually treated by the district public health officer or referred to a practising physician.

If a patient is placed in a public hospital (most hospitals are public in Norway) he will receive exactly the same diet, care and treatment, regardless of whether he is a self-paying man of wealth, an insured case, or a poor man whose bills are to be paid by the poor-relief system. Private wards do not exist in public hospitals, single or double rooms are available for patients who need them for medical reasons.

The Norwegian sick insurance system does not relieve the patient or his family of all financial burdens when illness strikes. It goes without saying that there are limits to the amount which the health insurance system will pay out, and in many cases not all expenses are covered. However, the system does provide

that everyone gets medical care, and that the worst sting is removed from the financial consequences of the illness.

From the doctor's point of view a large degree of freedom is also preserved. A licensed Norwegian physician is free to settle down and begin practice wherever he chooses. In accordance with his own interests, the physician is free to pursue any of the three main lines for medical activity in Norway: public health work, private practice or full-time hospital service on fixed salary.

Unlike the former German system, the Norwegian health insurance plan does not have a limited number of its own regularly employed doctors (Kassenartz). If the doctor is a private practitioner his income from the patients under the health insurance plan will depend on the amount of work he performs—that is, he is paid "fee for services" and not according to the English panel system.

Through health insurance the way is opened for people of limited means to receive just as good medical attention and hospital care as that enjoyed by others, and there is a stable foundation supplied for the functioning hospitals and other medical institutions.

Dr. Karl Evang, Director General, Norwegian Public Health Service, "Medical Services in Norway," Physicians Forum Bull. January-February, 1947-per Public Health Economics.

A.M.A. Appoints Committee for Dental and Medical Relations

The board of trustees of the American Medical Association has authorized the appointment of a committee of five to co-operate with a similar committee of the American Dental Association for the purpose of bringing about closer co-operation between physicians and dentists.

Health Director Warns of Glycol, Ultraviolet Dangers

R. E. Dyer, director of the National Institute of Health, U.S. Public Health Service, Federal Security Agency, has issued a statement warning that the use of glycol vapours and ultraviolet radiation in the control of air-borne infections is still in the experimental stage and is not satisfactory for public installation and

that ultraviolet rays of sufficient intensity to kill micro-organisms in the air are also harmful to the human eyes and exposed skin.

Fluoride Applications

by B. G. Bibby and S. S. Turesky

Summary of paper in Jour. of D. Research, April, 1947.

A group of 39 patients in which 1 quadrant of teeth had been treated 6 times during a 2-year period with a 0.1% sodium fluoride solution were re-examined 3 years after the cessation of such treatments. The treated quadrants still showed approximately 36% less new decay than the untreated quadrants. During the period of suspended treatment the occurrence of new decay was approximately 30% less in the quadrants which had been treated 3 years previously.

Health Education Radio Program

In cooperation with the Council of Social Agencies, the Committee on Dental Health Education of the Chicago Dental Society sponsored a radio broadcast over station WBBM, March 29. The broadcast was one of a series entitled, "That Men May Live." and was enacted by members of the Chicago Junior League Radio Theatre.

The story had to do with the old theme of "boy meets girl" but in this case the girl wasn't very happy about it because the boy had a jumbled up mess of teeth, which not only made him look goofy but also interfered with his articulation. As the story proceeded, the boy was put in the hands of an orthodontist who straightened his teeth and in so doing not only improved his appearance but his personality as well. To make a long story short, by the time the boy and girl were ready to graduate from high school she was quite willing to make a "very special date" with the boy for he had proved to be a better than average student and was elected Chairman of Graduation Activities.

The story was tied in with the Chicago Dental Society's program for dental health education. The announcer, in summing up, told the radio audience that programs were available to schools, churches, parent teachers associations, mothers' groups, men's clubs and all other organizations interested in the health, welfare and education of children. Lectures by

dentists, discussions by health educators, sound motion picture programs, and many kinds of educational literature could be secured, he said, from the Chicago Dental Society, which was making "an outstanding contribution to health education in its program of dental examinations of school children."

Fort. Rev. of Chi. D. Soc.

Rheumatism

The various forms of rheumatism or arthritis are the greatest cause of chronic disability in this country, Dr. Wallace Graham says in an article—"Arthritis, the Great Mystery"—in the March-April issue of the magazine *Health*. Dr. Graham is president of the Canadian Rheumatism Association.

"Although no dramatic cure for certain forms of arthritis has yet been found, there is evidence of a strong revival of interest by both physician and layman in what has been called the 'forgotten disease,'" Dr. Graham says. "Over 2,500 papers on rheumatism have been written in the English-speaking world during the past five years and, as more and more scientific information is accumulated, bit by bit one of the great medical puzzles is taking form.

"Using the term in its broadest sense, some two hundred forms of rheumatism have been described, including about one hundred different types of arthritis. However, the majority of rheumatic patients suffer from one of the common varieties, namely: rheumatoid arthritis, osteo- or degenerative arthritis, rheumatic

fever, gout, gonorrhoeal arthritis, fibrositis, or a psychoneurosis with rheumatic symptoms." Most of these forms and their relief measures are described in the magazine article.

Dr. Graham says that these types vary greatly in their cause, mode of onset, symptoms and resulting disability. For some a ready cure is available; for others treatment must consist of a program of undramatic measures which, though slow, will preserve joint movement and prevent deformity in most cases.

Rheumatoid arthritis still presents the most serious problem, Dr. Graham says. It tends to attack the younger group, even little children, and the fundamental cause has not yet been established. He says, however, that great interest has been aroused by frequent observations that rheumatoid arthritis becomes quiescent during pregnancy or during a severe attack of jaundice, only to recur after delivery of the baby or after the jaundice has subsided.

"Intensive research, therefore, is being carried out in an effort to find the alleviating factor in these two conditions."

Dr. Wallace concludes his article: "Although much has been accomplished in the field of rheumatism during the past few years, the problem is a gigantic one and facilities to treat all sufferers in this country with modern forms of therapy simply do not exist. The public mind has been focused for years on diseases which 'kill,' such as cancer and tuberculosis, but it is hoped that in the near future similar recognition will be given to the various forms of rheumatism or arthritis.

"Do we want peace or don't we? If we do, then there is only one way to get it. We have to cease deciding international issues by considerations of vote-catching, self-interest, power, greed, prejudice, passion, and more or less base emotions disguised under the name of patriotism. We have to begin to decide them impartially by reason and the principles of justice."—W. T. STACE in *Atlantic Monthly*.

IN MEMORIAM

E. Wilbur Honsinger, of St. Thomas, Ontario, died at his home in Port Stanley on April 25 at the age of 73. He was a member of one of the city's oldest families and at one time was a member of the St. Thomas Board of Education.

William C. Sprague, of Vancouver, B. C., died April 6 after a year of illness. He was graduated from the Baltimore Dental College before moving to Vancouver 48 years ago.

During the First World War, Dr. Sprague served as a captain in the Dental Corps.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

JUIN 1947

NO. 6

Les Théories de l'Anesthésie

par Marc Crevier, L.Sc., Montréal

1) *Théories de Bibra et Harless*

Bibra et Harless, en 1847, ont proposé une théorie basée sur la solubilité des anesthésiques dans les graisses et autres lipides du cerveau. D'après cette théorie, les anesthésiques libèrent les lipides qui, par la suite, se déposent dans le foie, ce qui serait la cause de l'anesthésie. Herman a soutenu, quoiqu'avec plus de réserve, la même théorie jusqu'en 1874. Riecher (1908) a vérifié l'augmentation des graisses dans le sang au cours de l'anesthésie au chloroforme. Mais, ainsi énoncée, la théorie fut abandonnée jusqu'à ce que Meyer et Overton la rajeunissent et la préconisent sous une autre forme vers 1900.

11) *Théories de la précipitation des colloïdes de Claude Bernard*

Claude Bernard observa que les muscles de grenouilles dans une solution de chloroforme deviennent rigides. Il remarqua également la réversibilité du phénomène. De plus, les nerfs plongés dans une solution de chloroforme, au moment où ils perdent leur irritabilité, deviennent plus opaques. De ces expériences, il conclut que les anesthésiques provoquent une semi-coagulation réversible du protoplasme.

Carl Blinz, en 1867, fit une observation analogue sur des tranches de cerveau: les cellules devenaient opaques et le noyau indistinct. Mais les solutions anesthésiques employées étaient hypertoniques.

En 1904, Moore et Roaf ont également observé une opalescence réversible du

sérum sanguin, lors de l'addition de chloroforme à 1%. Avec une solution à 2%, ils obtinrent une précipitation irréversible. Ils conclurent avec Claude Bernard que l'anesthésie était due à une réaction entre les protéines et les narcotiques. Quant à l'opalescence observée, elle est due, d'après un travail de Calugareanu, à l'adsorption du chloroforme sur la molécule protéique. Mais le chloroforme, en concentration anesthésique, ne provoque pas de précipitation dans le sang (Salkowski). Les anesthésiques au niveau des tissus ou des cellules sont donc en trop faibles concentrations pour provoquer une précipitation. D'ailleurs, les phénomènes de précipitation sont presque toujours irréversibles; ils ne peuvent, par conséquent, être la cause de l'anesthésie, ce phénomène étant essentiellement réversible.

Nous verrons cependant plus loin que Heibrunn et Daugherty ont proposé une théorie qui semble présenter des analogies avec celle-ci.

111) *Théorie de la déshydratation*

Une algue, l'Echevaria, soumise à des vapeurs d'alcool ou d'éther ou encore aux basses températures subit une déshydratation. Dans les mêmes conditions il se fait une vacuolisation du protoplasme chez la vorticelle et le phénomène est réversible pourvu qu'il ne soit pas trop prolongé. Enfin, la déshydratation et l'hémolyse des globules rouges en milieu hypotonique est empêchée par l'addition d'un peu d'alcool. Le même effet est

attribuable à l'uréthane, au salicylamide, au benzamide et à l'éther. De plus, les narcotiques inhibent l'imbibition de particules de fibrine.

Suivant Kochman, les anesthésiques produisent une déshydratation ou préviennent l'hydratation des cellules. Il en résulte une diminution du métabolisme. Winterstein a objecté avec raison que pour être acceptée la théorie devait être générale: tout phénomène de déshydratation devrait produire une narcose. Or, un muscle curarisé et injecté de glycérine devient plus irritable malgré la déshydratation ainsi produite.

IV) *Théorie de l'asphyxie*

Winterstein, Frolich et Magar ont démontré indépendamment que la matière vivante anesthésiée ne pouvait utiliser ou mettre l'oxygène en réserve. Verworn, sans bâtir une théorie, y a vu un état physiologique permettant de mieux comprendre l'anesthésie. Il conclut que les cellules anesthésiées perdent leur capacité d'absorber l'oxygène, tout en étant capables de l'utiliser au taux habituel. L'asphyxie résulte de la narcose. Il basa son hypothèse sur l'oxydation incomplète des glucides et la production d'acétone et d'acide lactique, chez l'homme soumis à une anesthésie prolongée. Mais le catabolisme des métabolites non seulement s'effectue normalement mais encore, dans certains cas, s'accélère au cours de l'anesthésie.

Cependant, plusieurs faits expérimentaux contredisent l'hypothèse de Verworn. On a pu anesthésier des animaux durant plusieurs jours sans remarquer d'asphyxie. De plus Warburg a pu inhiber la division cellulaire d'oeufs d'oursins sans modifier l'oxydation protoplasmique. La division cellulaire s'effectue normalement chez des oeufs d'*Arbacia* intoxiqués par les cyanures qui bloquent les oxydations (Lillie). Enfin, Winterstein a noté que les concentrations d'alcool qui dépriment le système nerveux central stimulent les oxydations. Ces quelques faits expérimentaux semblent établir une distinction nette entre les phénomènes de la narcose et ceux de l'oxydation.

V) *Théorie de l'oxydation*

Néanmoins, l'observation de Verworn reste vraie, qu'une excitation augmente le métabolisme cellulaire ou tissulaire tandis que l'anesthésie bloque les réponses aux excitations en agissant également sur le métabolisme. L'asphyxie et l'anesthésie sont caractérisées par une diminution des oxydations protoplasmiques telles que mesurées par la consommation d'oxygène et l'excrétion de gaz carbonique (Winterstein (1)).

L'oxydation protoplasmique (Quastel et Wheatley (2)) se fait par phases et il est possible de la bloquer en divers points. Les anesthésiques interviennent de cette façon et réversiblement. Mais si le taux des oxydations s'accélère lors de l'activation d'un tissu, c'est plutôt le résultat que la cause de l'excitation. De même, la diminution de la respiration semble bien être l'effet plutôt que la cause de l'anesthésie. D'ailleurs les anesthésiques ne produisent qu'une faible diminution du métabolisme tissulaire, beaucoup moins marquée que la diminution occasionnée par une chute de la température par exemple. Enfin, la théorie de l'asphyxie n'explique pas l'action stimulante initiale des anesthésiques. Mais si le parallélisme n'est pas rigoureux, il n'en reste pas moins vrai que les concentrations d'anesthésiques qui produisent la narcose in vivo sont de même ordre que celles qui inhibent la respiration de l'écorce cérébrale in vitro. (3) Ce fait est saisissant.

VI) *Théorie basée sur le principe de Traube*

Cette théorie, aujourd'hui rejetée partiellement, relie l'anesthésie aux phénomènes d'activité de surface et peut également la rattacher à la théorie de l'oxydation. Nous savons que les propriétés anesthésiantes de certains composés, tels les alcools, s'affirment avec l'augmentation du nombre d'atomes de carbone dans la chaîne moléculaire. Or l'activité de surface augmente parallèlement avec le nombre de carbone, et l'homologue supérieur dans la série des alcools diminue la tension superficielle d'une valeur au tiers de la concentration du précédent. Les concentrations anesthésiques suivent la même

gradation descendante. L'anesthésie s'expliquerait donc par l'adsorption des anesthésiques sur la molécule des métabolites, bloquant ainsi l'oxydation. Telle qu'énoncée, cette théorie est nettement insuffisante pour expliquer tous les phénomènes de la narcose, mais nous verrons qu'elle se relie avantageusement à d'autres théories.

VII) *Théorie de Meyer-Overton*

Meyer et Overton ont énoncé indépendamment les trois propositions fondamentales suivantes à la base de leur théorie:

- 1) toute substance liposoluble jouit de propriétés anesthésiques;
- 2) les propriétés anesthésiques d'une substance donnée se manifestent d'abord et surtout au niveau de cellules dont la constitution ou le métabolisme reposent principalement sur les lipides;
- 3) les propriétés anesthésiques d'une substance donnée se partagent suivant son affinité pour les lipides d'une part et son affinité pour les autres constituants cellulaires d'autre part.

Plusieurs faits expérimentaux supportent cette théorie. Par exemple, la solubilité dans les graisses de l'alcool, l'acétone et l'hydrate de chloral augmente avec l'élévation de la température; l'activité anesthésique suit la même fonction. Inversement, la solubilité dans les graisses de la salicylamide, benzamide et monacétine diminue avec l'élévation de la température; la puissance anesthésique de ces trois composés suit exactement la même dépression.

Les anesthésiques, d'après l'énoncé fondamental de Meyer et Overton, agiraient surtout sur les lipides cellulaires et en particulier sur la membrane en grande partie lipidique. Or, selon Traube, les substances liposolubles sont adsorbées facilement et abaissent la tension superficielle. Les anesthésiques agissent ainsi.

Mais il y a plusieurs graves difficultés. Les anesthésiques ne sont pas tous liposolubles: l'ion Mg^{++} , et l'ion K^+ , par exemple, qui jouissent de propriétés narcotiques chez la plupart des invertébrés et même chez les vertébrés. Il en est de

même de tous les dérivés de l'acide barbiturique. Enfin, Meyer et Overton croient que les propriétés anesthésiques des composés liposolubles se manifestent mieux au niveau de cellules qui oxydent principalement des lipides. Or, Dixon d'abord et Quastel ont démontré que le principal métabolite du système nerveux central était le glucose. (4)

VIII) *Théorie de la perméabilité cellulaire*

Cette théorie, soutenue par Hober, Lillie et Winterstein, a sur les précédentes l'avantage d'expliquer à la fois deux phénomènes intimement liés, la stimulation et l'anesthésie. Nous savons, en effet, que les stimulations s'accompagnent d'une augmentation de la perméabilité cellulaire. Or les anesthésiques préviendraient l'action stimulante des excitants normaux de la matière vivante en bloquant cette augmentation de la perméabilité ou même simplement en la diminuant.

Mais des études récentes sur la perméabilité cellulaire mettent en doute la valeur de cette théorie. Au premier chef, le calcium est un agent stimulant mais aussi diminue considérablement la perméabilité. La théorie explique bien l'anesthésie au magnésium qui, ici, diminue la perméabilité. Mais elle explique beaucoup moins bien l'action antagoniste du calcium qui est lui-même comme nous venons de le voir un facteur diminuant la perméabilité. Enfin, la théorie n'est pas générale puisque certaines substances jouissent de propriétés anesthésiques sans pour cela influencer la perméabilité cellulaire.

IX) *Théorie basée sur la chimie colloïdale*

Les phénomènes de stimulation et d'anesthésie, comme nous l'avons vu, ont toujours été reliés. Ce fut le point de départ d'une nouvelle théorie, soutenue principalement par Heilbrunn et Daugherty. Ces deux biologistes ont observé (5) que les rayons ultra-violetes causent chez l'amibe une liquéfaction du cortex cellulaire suivie, au centre de la cellule, d'une courte liquéfaction puis ensuite d'une coagulation. Cette liquéfaction du

cortex semble due à une libération d'ions Ca qui pénètrent à l'intérieur de la cellule et provoquent une réaction de précipitation de surface. Il est intéressant de noter que si le protoplasme est oxalaté, la réaction ne s'engage pas.

Le même phénomène, provoqué par des agents stimulants différents, a été observé par Angerer (6) et par Seifriz et Epstein. (7) Il n'est pas de preuve définitive que ces observations, enregistrées sur des types de protoplasme non différencié, puissent être répétées sur un tissu ou un organe. Mais Wacker (8) a noté une augmentation du calcium sanguin et Roeder une redistribution du calcium dans un nerf après excitation. (9) Il semble donc que le calcium, tant dans une fibre musculaire ou dans un nerf que chez l'amibe, est mobilisé lors de la stimulation.

Or, si un agent stimulant provoque une libération de calcium dans la zone corticale de la cellule, il s'en suit une réaction de précipitation de surface et une coagulation de la zone centrale. Heilbrunn émit l'hypothèse que les solvants des graisses pouvaient ou bien prévenir la libération du calcium ou bien inhiber la réaction de précipitation de surface. Déjà Daugherty (10) avait démontré que les alcools et l'éther favorisaient la liquéfaction de la zone corticale. Northen (11) avait observé le même phénomène. Donc les effets primaires des anesthésiques et des agents stimulants seraient semblables, c'est-à-dire causeraient une liquéfaction du protoplasme et une libération de calcium. Mais l'action spécifique des anesthésiques se manifesterait au niveau de la zone médullaire de la cellule en inhibant la réaction de précipitation de surface. (12) (13) Kessler (14) a noté le même phénomène. Cette théorie a le grand avantage d'expliquer d'une part la phase d'excitation qui marque le début de l'anesthésie et d'autre part l'action stimulante des anesthésiques en faible concentration, par la libération initiale de calcium et l'augmentation de la perméabilité. Burridge (15) explique de la même façon l'action de la cocaïne. Ainsi pourrait s'expliquer également que des anesthésiques généraux en injection

intracutanée produisant une anesthésie locale au point d'injection tandis que se manifeste l'hyperesthésie à la périphérie, là où les anesthésiques sont en plus faible concentration. (16)

Cette théorie basée sur la chimie colloïdale a certainement des points communs avec les théories plus anciennes. Ainsi elle tient compte nécessairement des phénomènes de la perméabilité. Elle peut même se relier à la théorie de l'oxydation. Nous savons en effet que le calcium est un activateur de certaines enzymes protéolytiques et de l'adénosine triphosphatase. (17) (18) (19) Mais on ne connaît pas, du moins jusqu'à ces derniers temps, l'effet d'un grand nombre d'anesthésiques sur la viscosité du protoplasme, notamment de tous les dérivés de l'acide barbiturique.

A la revue de ces différentes théories de l'anesthésie, nous voyons qu'elles ont entre elles plusieurs points communs. Nous pourrions les réunir, suivant les faits expérimentaux qui leur ont donné naissance, en quatre groupes. A savoir, celles qui s'appuient sur des changements du métabolisme cellulaire, sur des variations de la perméabilité, sur la solubilité des anesthésiques dans les lipides et sur l'adsorption. Aucune d'elles n'a l'avantage d'expliquer tous les faits expérimentaux et certaines d'entre elles sont carrément contredites par de récentes découvertes. Elles n'expriment probablement que les divers états physiologiques qui caractérisent l'anesthésie. Il est très difficile en effet de ne pas concevoir que l'anesthésie diminue l'oxydation protoplasmique ou qu'un changement de la perméabilité cellulaire n'influence pas le métabolisme de la cellule. De même, la solubilité des anesthésiques dans les lipides est étroitement liée aux phénomènes de la perméabilité, si l'on se rappelle que la membrane est d'abord lipidique. Enfin, les phénomènes de tension superficielle et d'adsorption, à leur tour, sont étroitement reliés au métabolisme, surtout aux réactions enzymatiques du métabolisme.

Chacune de ces théories explique donc un point particulier, ou des états physiologiques qui caractérisent l'anesthésie. Elles

présentent comme nous venons de le voir, à des titres divers, des points communs. Aucune d'entre elles, cependant, n'a le mérite de présenter une explication générale et définitive de tous les faits connus ou des mécanismes possibles.

BIBLIOGRAPHIE

- Henderson, V. E. The Present Status of the Theories of Narcosis. *Physiol. Reviews*, 1930, 10: 171.
 Heilbrunn, L. V. An Outline of General Physiology. Saunders, 1943.
 Adriani, J. The Chemistry of Anesthesia. Thomas, 1946.
 1—Die Narkose, Berlin, 1926.
 2—*Biochem. J.*, 1934, 28: 1521.

- 3—*Biochem. J.*, 1937, 31: 565.
 4—*Physiol. Reviews*, 1939, 19: 135.
 5—*Protoplasma*, 1933, 18: 596.
 6—*J. Cell. and Comp. Physiol.*, 1936, 8: 329.
 7—*Biodynamica*, 1941, 3: 191.
 8—*Klin. Wochenschr.*, 1929, 8: 244.
 9—*Biochem. Zeitschr.*, 1930, 218: 404.
 10—*Physiol. Zool.*, 1937, 10: 473.
 11—*Cytologia*, 1939, 10: 105.
 12—*Biol. Bull.*, 1920, 39: 307.
 13—*Biol. Bull.*, 1925, 49: 461.
 14—*Planta*, 1935, 24: 315.
 15—*Arch. Intern. Pharmacodynamie*, 1922, 26: 115.
 16—*Physiol. Reviews*, 1932, 12: 192.
 17—*Biochimia*, 1941, 6: 183.
 18—*Jour. Biol. Chem.*, 1943, 147: 699.
 19—*Nature*, 1943, 152: 81.
 711-47a

COURS DE PERFECTIONNEMENT A L'UNIVERSITE DE MONTREAL



Groupe de dentistes, qui ont suivi, récemment, à la Faculté de Chirurgie Dentaire, un cours de perfectionnement en Chirurgie et Anesthésie.

Première rangée: de g. à d.: les Drs Paul Geoffrion, vice-doyen; C. I. Finklestein, Montreal; J. Graham Montgomery, Ottawa, Ont.; Ernest Charron, doyen; Gérard de Montigny, directeur du cours; D. C. Albert Mady, Sudbury, Ont.; Henrique Kabane, Rio de Janeiro, Brésil.

Deuxième rangée: de g. à d.: les Drs G. Brouillet, professeur; W. E. Connell, Kingston, Ont.; James B. O'Brien, St.-Jean, Nouveau-Brunswick; Lucien Reeves, professeur; Marcus Star, Montréal; J. G. McKinney, Montréal;

Troisième rangée, de g. à d.: les Drs Henry A. Thompson, Toronto, Ont.; L. O. Léger, St.-Jean, Nouveau-Brunswick; Marcel A. Archambault, professeur; A. Lapin, Montréal.

CHEZ NOUS ET AILLEURS

Finissants à l'Université de Montréal

Trente-sept nouveaux dentistes sont diplômés de la Faculté de Chirurgie Dentaire de l'Université de Montréal, à la fin de mai 1947. Les noms de ces nouveaux confrères, suivis de l'endroit, où ils comptent ouvrir leur cabinet, sont les suivants: Bédard, Guy, Montréal; Béland, Jacques, Montréal; Bélanger, Bernard, Val d'Or; Bélanger, Jacques, Montréal; Benoit, Guy, Montréal; Benoit, Jean-Paul, Montréal; Boissonnault, Rosaire, Québec; Bourgon, Marcel, Montréal; Bussière, Julien, Montréal; Chabot, Henri-Paul, La Malbaie; Chalifoux, Pierre, Montréal; Chantelois, Léandre, Montréal; Charbonneau, Jean, Montréal; Charland, Gérard, Montréal; Coutu, Guy, Montréal; Couture, Paul, Ste-Anne de Beaupré; D'Aoust, Georges, Hull; Décarie, Rémi, Lachine; Duguay, Blaise, Dalhousie; Gagnon, Jean, Laprairie; Gélinas, Jean-Paul, Latuque; Guilbert, Emile, Montréal; Lacasse, Robert, Montréal; Lafortune, Marcel, Montréal; Lalanne, Jean-Guy, Iberville; Lamy, Gaston, Jonquières; LaRochelle, Jean-Raoul, Bedford, Maine; Laurin, Fernand, Montréal; Leblanc, Jean-Yves, Bedford; Lévesque, Marc-A., Arvida; Marsolais, Pierre, Epiphanie; Moro, Gabriel, Montréal; Poirier, Richard, Nicolet; Racine, Edmond, Gatineau; Rousseau, Réginald, Bagotville; Roy, Chs-Edmond, D'Israéli; Thibert, Jean-Noël, Fitchburg, Mass.

La Société Dentaire de Montréal

Le conférencier de la Société Dentaire de Montréal, à la séance de mai 1947, était le docteur J. N. Thibert, de Fitchburg, Mass., qui entretint les membres d'"Analgésie en Chirurgie Dentaire". Une assistance nombreuse accueillit le Docteur Thibert, qui est un fervent de cette méthode d'obtenir une coopération totale du patient durant la préparation des cavités en dentisterie opératoire.

Le Conseil D'Education Dentaire

Une subdivision du Conseil d'Education Dentaire s'est réunie, à Toronto, le 7

avril, pour étudier l'opportunité de créer une Commission Nationale d'Examen Dentaire, pour tout le Canada. Cette Commission contrôlerait l'émission de diplômes permettant l'exercice dans tout le pays. Un rapport de l'étude de cette question sera soumis à l'assemblée des délégués des provinces, à Digby, en juin prochain.

Don Pour la Recherche Dentaire

Le comité des dames auxiliaires de la Société Dentaire de London, Ont. vient de faire parvenir à l'Association Dentaire Canadienne un chèque au montant de \$1,048.55, qui a été versé aux fonds du Comité des Recherches.

Comité de Publication

Le Comité des Publications s'est réuni, à Toronto, le 21 avril, pour discuter les problèmes du Journal de l'Association Dentaire Canadienne. Le comité s'est efforcé de régler la question du coût additionnel de l'impression et des moyens à prendre pour augmenter le volume de la revue. D'autres améliorations sont au programme et toutes ces suggestions seront soumises à la réunion plénière de juin, à Digby.

Aide Canadienne à la Chine

Un comité de dentistes canadiens, groupés sous l'égide de l'A.D.C., recueille des souscriptions pour acheter deux cliniques dentaires mobiles, qui serviront aux populations chinoises. Ces cliniques mobiles seront données à la West China Union University, qui est la plus vieille école dentaire de Chine et qui a été fondée et qui est encore dirigée et alimentée par des professeurs canadiens. Ces cliniques rendront un service inappréciable, en Chine, où il n'y a que 400 dentistes pour desservir une population de 450,000,000 d'habitants.

On demande aussi tous les accessoires et instruments disponibles, récents ou anciens. On peut adresser le tout à: AIDE CANADIENNE A LA CHINE, 371 rue Bay, Toronto 1, Ont. Ce comité donnera des reçus, qui sont valables pour des exemptions à l'impôt sur le revenu.

Tournoi de golf annuel

On organise actuellement un tournoi de golf pour les dentistes du district de Montréal. Cette réunion sportive aura lieu au début de l'été.

Ceux que la chose intéresse pourront communiquer avec les docteurs J. C. Bouillon (FR. 9265) ou G. Vanasse (AM. 3005).

Des prix de valeur sont mis en jeu par les fournisseurs.

Allocutions du Président de la Fédération Dentaire Internationale

A. E. Rowlett, Leicester, Angleterre

Aux Journées Dentaires de Paris, en novembre 1946

Il m'a été fait le grand honneur d'être choisi pour vous faire, en cette occasion importante, une brève allocution. Je voudrais vous apporter tout d'abord les souhaits et les messages dont m'ont chargé pour vous les deux associations que j'ai le privilège de représenter. Il m'est aussi un bien agréable plaisir d'exprimer les sincères remerciements de chacun des membres de la F.D.I. à la direction de l'Ecole Odontotechnique pour leur hospitalité généreuse en plaçant des locaux à notre disposition, et au groupement Odonto technique de Paris pour avoir invité nos membres à assister aux Journées Dentaires et m'avoir placé, en qualité de Président de la F.D.I., sur l'ordre du jour de la Séance Inaugurale.

Qu'il me soit permis d'ajouter l'expression de mon extrême plaisir, en apprenant que la réunion inaugurale de la première séance régulière de la F.D.I. serait associée à une séance présidée par une personnalité aussi distinguée que celle du Professeur de Clinique et de Thérapeutique à la Faculté de Médecine de Paris.

La présence de Monsieur le Professeur Senèque comme Président de cette assemblée doit être considérée comme d'un heureux augure et un symbole approprié des fonctions complémentaires de la Médecine et de l'Art Dentaire dans les services de nos futures communautés sociales.

Comme son nom l'indique, les fonctions

de la F.D.I. sont doubles, à la fois dentaires et internationales, et il est d'importance primordiale pour la compréhension de notre fédération qu'il n'y ait aucun doute à ce sujet dans l'esprit de la distinguée assemblée qui m'écoute.

L'Art Dentaire couvre une profession complexe et qui peut-être divisée en deux branches; la Chirurgie Dentaire et la Médecine Dentaire. Si nous examinons en détail la Chirurgie Dentaire, il sera constaté que, en ce qui concerne le tissu dentaire dur, il diffère d'une façon si considérable de tous les autres tissus du corps au point de vue anatomique, physiologique, histologique, pathologique et thérapeutique que la Chirurgie Dentaire de conservation devient "sui generis" une spécialité. D'autre part les tissus buccaux qui entourent les dents sont de même nature, sujets aux mêmes maladies et guérissent par la formation du même tissu cicatriciel que le reste du corps; ici la Chirurgie Dentaire figure comme une branche spéciale de la Chirurgie Générale. La Chirurgie Dentaire comprend aussi l'orthodontie et la prothèse. Cette branche de l'Art Dentaire, quoiqu'on ne puisse pas la séparer des deux autres branches entraîne en outre des problèmes de mécanique, de génie, et de dessin.

La Médecine Dentaire est plus simple à définir. Supposant (ce qui est généralement admis) que toutes les maladies dentaires et les désordres comprenant des malformations doivent être considérés fondamentalement comme la manifestation

locale d'un désordre constitutionnel, et étant donné que la Médecine Dentaire concerne la prévention et le traitement des maladies et désordres dentaires au moyen de régimes, médecines et "régimes," la Médecine Dentaire prend sa place comme une spécialité de la Médecine Interne. Il semble logique d'affirmer qu'en Art Dentaire l'isolation produirait la stagnation et que tout progrès réel vers son but, c'est-à-dire la prévention des maladies dentaires ne pourra être, obtenue que grâce à la coopération la plus étroite entre la médecine l'Art Dentaire aussi bien, sur le plan national que sur le plan international.

Il a été dit par un philosophe que pour vivre une vie adéquate et satisfaisante deux choses sont nécessaires à l'homme; il doit gagner sa vie et vivre en harmonie avec ceux qui l'entourent. Probablement, au fur et à mesure de ce que la société devient plus complexe, le deuxième de ces points émerge comme le plus important et c'est précisément celui que couvre la deuxième fonction de la F.D.I.

Il y a un peu plus d'un an, la valeur de toute activité humaine était jugée d'après sa contribution à la victoire et à la destruction du principe de gouvernement par un dictateur. L'idéal de la guerre est toujours un idéal de destruction. L'idéal de la paix doit donc être un idéal de construction et ne peut être statique, ce qui conduirait à la stagnation mais bien plutôt dynamique, par un combat continu et jusqu'à extermination de ce qui est mauvais.

Cette harmonie essentielle d'activité ne peut être bâtie que sur la fondation d'une confiance mutuelle qui, à son tour est engendrée par l'atmosphère du contact personnel.

Aux collègues qui, avec moi, ont travaillé dans et pour la F.D.I., cette affirmation a une qualité d'axiome car ils en ont, soit la conviction profonde, soit une connaissance acquise par l'expérience.

Il est admis universellement que si U.N.O. en tant qu'organisation mondiale, ne peut faire naître cet esprit d'activité harmonieuse, la civilisation moderne court à sa perte et qu'un cataclisme plus hideux que celui dont nous venons de souffrir en sera le résultat.

C'est avec la conviction que cet esprit préside à notre réunion comme il le fit aux récentes Journées Médicales de Bruxelles que je fais appel avec confiance aux plus jeunes des membres de notre profession, ici présents, pour qu'ils donnent au moins leur aide morale à la F.D.I.

Point n'est besoin pour moi de m'étendre sur le plaisir que nous avons à visiter une fois de plus votre merveilleuse Cité. C'est ici que la F.D.I. fut fondée en 1900, que 3 des 9 Congrès Quinquennaux Dentaires Internationaux furent tenus; de plus Paris nous a donné 2 de nos plus célèbres Présidents, Chas. Godon, notre fondateur, et notre bien aimé Georges Villain.

Notre Fédération a souffert récemment une bien grande perte par la mort subite du Dr. Harvey Burkhart, le directeur de la fondation Eastman dont le dernier geste fut la clinique Eastman à Paris et dont la dernière visite à une réunion de la F.D.I. fut faite à Paris en 1938.

M. le Président, Mesdames, Messieurs, nous qui, présents cet après-midi, sommes par éducation et profession consacrés à la Science, pouvons proprement approcher nos problèmes avec un esprit scientifique. Rien ne ressort plus clairement, dans l'histoire du progrès, que l'habitude invétérée de l'homme de rapprocher temporairement des théories et des pratiques irréconciliables. Toutefois il n'existe pas de Providence spéciale pour protéger la vertu inintelligente et le manque d'ingénuité mentale, le vice fondamental des fausses conceptions sociales.

Soyons donc assurés de notre propre destinée. Prenons nos décisions chacun selon la mesure de ses capacités, pour réaliser cette assurance, et efforçons-nous avec une froide persistance de percer en son point le plus faible toute barrière d'ignorance et de suspicion qui barre la voie large menant à la Paix. . . car cela. . . c'est la Science.

A l'occasion de la réunion de l'Exécutif de la F. D. I., à Paris, en janvier, 1947

Il m'est difficile de trouver les mots nécessaires pour vous exprimer mon ap-

préciation profonde de l'honneur qui m'a été fait par votre offre de la Présidence de la F.D.I.

Je voudrais vous dire, tout d'abord, que, malgré l'extrême intérêt personnel que cette occasion présente pour moi, sa principale signification ne se trouve pas dans l'extraordinaire compliment qui m'a été fait mais plutôt dans la longue liste des hommes éminents qui m'ont précédé dans cet office et ont consacré une vie entière de services dévoués à la cause de la solidarité scientifique internationale.

Je ne puis que vous assurer du vif désir que j'ai de me montrer digne de la confiance que vous avez placée en moi, et de donner tous mes efforts pour maintenir la grandeur et les traditions de cet office distingué.

La réunion d'aujourd'hui est la première session régulière de la F.D.I. depuis 1939, et il est utile, je crois, de faire un bref exposé de l'histoire de la F.D.I. depuis cette date.

Lors de la réunion si remplie d'événements de juillet 1939, à Zurich, les arrangements pour la publication d'un *Journal Dentaire International* furent complétés, et, après maintes discussions, il fut décidé de tenir à Londres, en 1941, un *Congrès Dentaire International* Quinquennal. Ces deux projets furent annulés de force par la déclaration de guerre en septembre 1939. La Tchécoslovaquie, la Belgique, la France, la Hollande, le Danemark, la Pologne, la Norvège, la Finlande, la Grèce et la Russie furent tour à tour et rapidement occupés par l'ennemi, isolant ainsi notre Secrétaire Général et reportant au jour de la libération la possibilité pour la F.D.I. de reprendre les fonctions actives d'un corps organisé.

Activités Dentaires Internationales Durant la Guerre.

Durant la guerre, il m'échut en partage de visiter les Etats-Unis et le Canada par trois fois, dans le but de maintenir les relations internationales et de discuter de façon compréhensive les problèmes de la communauté, d'organiser un service de santé en général et de santé dentaire, en particulier.

L'extraordinaire esprit de camaraderie,

qui anime la F.D.I. fut illustré de façon frappante par la réception qui me fut faite au cours de ces visites, par tous les membres de la Fédération. L'hospitalité américaine et canadienne sont proverbiales et ce sera donc non point dans un esprit de distinction particulière, mais bien pour rendre hommage à la F.D.I. que je mentionnerai les noms du Dr Harvey Burkhart, de Rochester, du Dr Don Clawson, de Nashville, du Dr Ellis, de Toronto, du Dr Andrew Jackson, de Philadelphia, du Dr Logan de Chicago, et de tous les anciens collègues de la F.D.I. qui m'ouvrirent leur home et me traitèrent non point en invité, mais comme un membre de la famille.

Le mort du Dr Logan, notre Président, en 1943, et la perte récente du Dr Burkhart, en nous privant de deux hommes qui connaissaient l'Europe intimement, créent pour nous une perte irréparable. Heureusement, toutefois le Dr Logan, le Dr Burkhart et le Dr Don Clawson, ne cessèrent jamais de prêcher la doctrine de l'internationalité de l'Art Dentaire dans les conseils de la A.D.A. et le Dr Walter Sherer, président de la A.D.A. depuis octobre 1944 jusqu'à octobre 1946, donna son concours puissant à cette idée durant tout le cours de son long office, ce dont nous ne pourrions jamais lui être assez reconnaissants.

Je voudrais mentionner un autre point au sujet des activités de guerre de la F.D.I.: ce fut la position unique occupée par la Commission d'Hygiène Buccale. Cette Commission, comme vous le savez probablement, est associée à la Croix-Rouge de Genève, une combinaison particulièrement heureuse et appropriée; car de même que l'hygiène buccale, qui peut-être définie comme l'aspect buccal de la médecine préventive, est la fondation sur laquelle doit être bâti l'Art Dentaire, c'est l'idéal de la Croix-Rouge de Genève qui fournit la seule fondation solide pour une paix constructive.

Bien que les activités de la F.D.I., furent forcément réduites, durant la guerre, il est toutefois possible et de mise de décrire la Commission d'Hygiène Buccale comme un organisme d'activité vivante. Ma position de Président de

cette Commission reçut un accueil cordial dans les cercles officiels de santé et autres. Je voudrais également profiter de la circonstance pour exprimer ma reconnaissance, et celle de toute la Fédération à notre collègue, le Dr René Jaccard, dont l'idéal humanitaire et la prévision furent les causes originaires de cette affiliation. Seulement deux pays européens échappèrent aux ravages de la guerre: la Suède et la Suisse. Toutes deux furent des oasis de paix et de charité dans le désert de haine et de souffrance, qui les entourèrent, et la Suisse, fidèle à son esprit de Croix-Rouge Internationale, établit le Secours Dentaire International qui, sous la Présidence du Dr Jaccard, apporta son secours à des malades dans des pays où les soins dentaires étaient quasi inexistantes. La F.D.I. a montré son appréciation de ces services en souscrivant à cette organisation une donation aussi généreuse que possible, en face de fonds tristement diminués.

Activités d'Après Guerre.

Dès que la guerre fut finie les membres du Bureau reprirent contact par lettre et ce fut une très grande joie d'apprendre ainsi que beaucoup de nos collègues et leur famille étaient vivants et en bonne santé. Je suis sûr que tous les membres de la F.D.I. reprirent un nouveau courage en apprenant que notre Secrétaire Général était non seulement vivant et en bonne santé, mais, de plus, rempli d'enthousiasme pour commencer le travail de reconstruction de la F.D.I.

Des réunions furent rapidement organisées. En juillet 1945, une réunion non officielle, eut lieu à Bruxelles, et en novembre 1946, une autre prit place à Paris conjointement avec les Journées Dentaires. Une réunion du Bureau et du Conseil Exécutif fut organisée en juin dernier à Bruxelles et aujourd'hui, grâce à l'hospitalité de l'Ecole Odontotechnique, il nous est possible de nous réunir en session régulière. Après la guerre mondiale de 1914-1918, trois ans s'écoulèrent entre la signature de l'Armistice et la réunion non officielle, à la Haye, des membres de la F.D.I. La première session régulière prit place en septembre 1922 et ce ne fut qu'en août 1926, presque huit

années après l'Armistice que le Premier Congrès Dentaire International d'après-guerre fut organisé à St Louis. Si nous nous rappelons ce qui a été accompli durant les deux années qui viennent de s'écouler, et ce, en dépit de circonstances incomparablement plus difficiles en tous points à celles de 1918 et que, de plus, il peut être déjà dit que les arrangements pour un Congrès Dentaire International à Boston, l'an prochain, sont déjà en main, je n'hésiterai pas à décrire les progrès que nous avons faits comme un superbe résultat international.

Nous désirons offrir nos remerciements les plus sincères à tous les collègues, aussi bien en Europe qu'en Amérique, dont l'enthousiasme et l'énergie ont rendu ce progrès possible et en particulier à notre collègue le Dr Nord; ses activités d'après-guerre lui ont une fois plus mérité le titre de "Flying Dutchman" (le hollandais volant) qui, comme vous le savez, sans doute, est le nom donné à notre train le plus rapide en Angleterre.

Les Plans de la F.D.I. pour l'Avenir

Le Bureau a consacré beaucoup de temps et d'attention à l'avenir de la F.D.I. et le détail de ces discussions paraîtra au rapport qui vous sera donné par le Secrétaire et le Trésorier. Toutefois, il est de mon devoir, comme Président, de vous entretenir de quelques facteurs fondamentaux régissant l'avenir de notre Fédération.

La guerre mondiale dans laquelle nous avons été plongés, doit être considérée comme le cataclysme et le bouleversement social qui influenceront toutes les activités d'après-guerre et par conséquent celles de la F.D.I. Durant presque 40 années la F.D.I. a présenté un remarquable exemple d'entreprise privée et de service volontaire par des dentistes appartenant aux nations les plus variées, mais qui tous étaient animés par l'idéal professionnel le plus élevé. L'esprit d'altruisme et le lien de bonne camaraderie qui furent engendrés de ce chef, permirent à la Fédération de rester fermée durant la guerre 14-18; les événements récents ont prouvé que ce lien était toujours intact. Toutefois, les facteurs d'environnement ont changé si radicalement que la machine qui

travailla de façon excellente dans la période située entre 1900 et 1914 et aussi quoique grinçant quelque peu, de 1918 à 1939, est aujourd'hui complètement hors de marche. Jusqu'en 1939, il y eut toujours un nombre suffisant de dentistes qui, animés de l'esprit international et agissant dans les bornes d'un régime capitaliste étaient capables et acceptaient de donner annuellement leur temps, leur énergie, et des sommes d'argent substantielles pour faire de la F.D.I. une entreprise pleine de succès. Ces conditions n'existent plus et les jeunes dentistes de l'avenir ne pourront supporter ces charges, car l'immixtion de l'Etat dans tout ce qui regarde la Santé Publique, et les impôts qu'ils ont à supporter ont enlevé aux individus la possibilité de financer de façon privée, des entreprises internationales. Il est donc de notre devoir de prouver que nous sommes un organisme vivant en nous adaptant à ce nouveau milieu. Les mé-

thodes proposées vous seront présentées par le Secrétaire et le Trésorier et formeront le plus important sujet de discussion à notre Conseil et entre les Membres américains et européens jusqu'au prochain Congrès.

En concluant, je voudrais lancer un appel aux plus jeunes des membres de la profession; l'héritage que vous recevez n'est pas de minime importance! Nous, les anciens, avons supporté le travail du moment. Nous pouvons dire l'avoir fait avec conscience et, je l'espère avec succès, les uns pour 20 années, les autres 30 ou 40, et quelques uns même pour plus longtemps. C'est à vous et à votre génération de reprendre les tâches qui, graduellement et par la force des choses, doivent tomber de nos mains. Quand vous reprendrez le flambeau, faites-le en hommes qui aiment et respectent l'idéal de la F.D.I. comme nous, les anciens l'avons aimée et respectée.

LE JUS DE CITRON ET LES DENTS

Le jus de citron contient beaucoup de vitamine C et les médecins le recommandent souvent pour le traitement du rhumatisme, des rhumes, de la constipation, de l'obésité, etc. Quelques dentistes, cependant, s'objectent à une trop grande consommation de jus de citron parce qu'il porte atteinte aux dents.

Cinquante patients se sont présentés à la Clinique Mayo se plaignant de mal de dent et d'érosion graduelle de leurs dents antérieures. Les dentistes de cette institution ont découvert que ces patients étaient des habitués du jus de citron — "un verre de jus de citron avec un peu d'eau, le matin" — ou avaient l'habitude de sucer un citron. Les dents de quelques-uns de ces patients étaient comme usées jusqu'aux gencives. Les spécialistes de la Clinique Mayo conclurent que l'acide citrique des citrons avait attaqué l'émail de ces dents.

Le docteur Daniel Ziskin, de l'Université Columbia, est d'avis que les jus de citron et de pamplemousse, acides tous les deux, amollissent l'émail des dents. (Le jus d'orange, moins acide, n'a pas les mêmes effets). Mais l'acide n'est pas seul responsable de cette affliction. Le vrai dommage est occasionné par le brossage de ces dents ramollies avec des brosses dures ou des dentifrices rudes. Le docteur Ziskin prétend que l'absorption de jus citriques dilués, une fois par jour, n'est pas dommageable, si l'on ne brosse pas les dents vigoureusement après.

Mais, néanmoins, les dentistes de la Clinique Mayo, en se rendant compte que de plus en plus les gens boivent du jus de citron, croient que cette habitude de boire des jus de citron concentrés est nuisible et devrait être déconseillée.





PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.
397 est Boul. S.-Joseph, Montréal

LE CONTROLE DE NOTRE DOMAINE

“Il faut être maître chez soi.” Cet axiome, vrai depuis que le monde est monde, devrait se réaliser chez nous, au sein de notre groupement professionnel, comme dans tous les autres domaines, ou des principes scientifiques solides dirigent le comportement des masses.

Nous avons comme mission de protéger la santé des dents, en répandant autour de nous des notions précises d'hygiène dentaire; notre rôle de dentiste nous oblige à réparer les dégâts occasionnés par l'ignorance ou la négligence de nos patients; notre devoir consiste à traiter, d'une façon empirique souvent, des maladies, dont les causes directes nous échappent encore, après plus de cent ans d'enseignement et de recherches. En un mot, nous sommes tenus de sauvegarder, par tous les moyens mis à notre disposition, les dents et les tissus environnants. Voilà notre raison d'être et notre obligation. Toutefois, il est un champ d'action de soins et de prévention d'affections dentaires, qui, normalement, devrait être dirigé par le dentiste et qui échappe complètement à son contrôle. Une série innombrable et incalculable de traitements, répétés, tous les jours, par les patients eux-mêmes, à leur domicile, se déroberont à la direction de l'homme le mieux formé en dirigeant l'opération, le dentiste! Les gens se nettoient les dents quotidiennement à l'aide de brosses de leur choix et avec un dentifrice, qui leur est imposé par une réclame tapageuse—quand elle n'est pas frauduleuse—sans que le chirurgien-dentiste soit consulté souvent au sujet de cette hygiène, lourde de conséquences.

Il nous arrive souvent d'avoir à donner des conseils pour l'emploi d'une brosse à dents ou de pâte dentifrice. Nous le faisons de mauvais gré, car nous sommes quelque peu perdus dans ce dédale de marques de commerce, de formes, de couleurs et de noms, dont la publicité de nos courriers, des publications scientifiques et profanes, de la radio et des panneaux-réclames nous inonde tous les jours.

Il suffit de consulter la liste des dentifrices approuvés par le Council on Dental Therapeutics de l'American Dental Association, pour se rendre compte de leur petit nombre.

Les marques populaires, mises à l'étalage, par des consortiums de savonnages, y brillent par leur absence.

Il arrive cette situation étrange que des dentistes, formés par de longues années d'études, doivent recommander à leurs patients des produits mis sur le marché par des cartels internationaux, dont le premier but n'est certainement pas de procurer à leur clientèle une denture propre, mais de payer de gros dividendes à leurs actionnaires.

Il serait facile pour nous de prescrire à nos patients un nettoyage des dents avec du sel de table ou une substance alcaline.

L'emploi de ces sels serait aussi efficace que celui d'une pâte ou d'une poudre, dont le succès est basé sur une publicité bien faite. Quand on se lave les mains, un savon quelconque suffit.

Mais la mentalité de nos gens est ainsi faite, qu'il leur faut une pâte ou une poudre en tube, pour gagner leur confiance et satisfaire leur gout. Eh bien, la profession dentaire se doit de diriger la santé des dents et des gencives dans les cabinets, et dans les demeures des patients. Les dentistes du Québec sont capables de s'organiser pour offrir à la population une pâte ou une poudre dentifrice et une brosse, qui répondent réellement aux besoins physiologiques des tissus dentaires. Et voici une suggestion, que nous nous permettons d'énoncer pour réaliser ce programme:

- 1) Former un comité de dentistes, sous l'égide du Collège des Chirugiens-Dentistes de la Province de Québec, de la Faculté ou d'une Société Dentaire, pour étudier le projet de présenter à notre clientèle une brosse et un nettoyeur satisfaisants.
- 2) Trouver une formule de dentifrice et une forme de brosse, d'aspect attrayant, d'appellation imagée et de cout abordable.
- 3) Ramasser les fonds nécessaires au financement de cette organisation peu couteuse.
- 4) Faire une publicité honnête, chez les dentistes, pour qu'ils recommandent à leurs patients ces produits, approuvés et patronisés par la profession dentaire.
- 5) Charger une compagnie déjà existante, de la distribution et de la gérance commerciale de cette entreprise.
- 6) Attribuer les profits annuels de cette organisation à une oeuvre dentaire, telle que bibliothèque, recherches, secours aux dentistes nécessiteux, bourses d'études, etc.

Il nous semble qu'il y aurait quelque chose à réaliser dans cette voie. L'idée n'est pas nouvelle, elle a été mise en exécution, ailleurs, avec succès.

Il ne faut que des hommes de bonne volonté, conscients de leur devoir professionnel et animés d'idéal et d'esprit d'avancement.

CANADIAN DENTAL ASSOCIATION

DIRECTORY OF OFFICIALS

OFFICERS

President—V. D. Crowe.....	Truro, N.S.
Immediate Past President—Harvey W. Reid.....	195 Yonge St., Toronto
Vice-President—J. K. Carver.....	1240 Union Avenue, Montreal, P.Q.
Secretary-Treasurer—Don W. Gullett.....	211 Huron St., Toronto

BOARD OF GOVERNORS

R. L. Pallen.....	5870 Cartier St., Vancouver, B.C.
R. A. Rooney.....	523 Tegler Bldg., Edmonton, Alta.
W. M. Blair.....	1005 McCallum Bldg., Regina, Sask.
H. J. Merkeley.....	611 Medical Arts Building, Winnipeg, Man.
Harvey W. Reid.....	195 Yonge St., Toronto, Ont.
G. H. Campbell.....	Orangeville, Ont.
F. A. Blatchford.....	4-5 Francis Block, Fort William, Ont.
S. W. Bradley.....	142 Laurier Ave. W., Ottawa, Ont.
G. Ratté.....	140 rue St-Jean, Québec, Qué.
J. K. Carver.....	1240 Union Ave., Montreal, P.Q.
H. W. MacDonald.....	1 Coburg St., Saint John, N.B.
V. D. Crowe.....	807 Prince St., Truro, N.S.
D. T. Waye.....	Charlottetown, P.E.I.

EXECUTIVE

V. D. Crowe, Chairman, Harvey W. Reid, (ex officio), J. K. Carver,
R. L. Pallen, H. J. Merkeley, Don W. Gullett.

CHAIRMEN OF COMMITTEES

Nominating—Harvey W. Reid.....	195 Yonge St., Toronto, Ont.
Legislation—S. W. Bradley.....	142 Laurier Ave. W., Ottawa, Ont.
Finance—H. J. Merkeley.....	611 Medical Arts Bldg., Winnipeg
Publications—R. P. Lowery.....	19-A Glendonwyne Rd., Toronto, Ont.
Council on Dental Education—A. L. Walsh, Faculty of Dentistry, McGill University, Montreal, Que.	
Dental Health & Public Relations—H. M. Cline, 1428 Medical-Dental Bldg., Vancouver, B.C.	
Program—Hugh M. Eaton.....	Birks Bldg., Halifax, N.S.
Ethics—K. M. Johnson.....	314 Somerset Bldg., Winnipeg, Man.
Research—R. G. Ellis.....	230 College St., Toronto, Ont.
By-laws—J. S. Bagnall.....	78 Larch St., Halifax, N.S.
Necrology—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Nomenclature—A. M. Revell.....	313 Birks Bldg., Edmonton, Alta.
International Relations—E. Charron, Faculty of Dentistry, University of Montreal, Montreal, Que.	
Dental Service—J. K. Carver.....	1240 Union Ave., Montreal, Que.
Advisory—J. A. Bothwell.....	170 St. George St., Toronto, Ont.
Rehabilitation—G. V. Fisk.....	170 St. George St., Toronto, Ont.
Health Insurance—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Auxiliary Services—R. A. Rooney.....	423 Tegler Bldg., Edmonton, Alta.
Industrial Dentistry—C. A. E. McCabe.....	Valleyfield, Que.
Specialist and Specialization—Roger McMahon, 819 Drummond Medical Bldg., Montreal, Que.	



WHO'S THAT?

Photo by RICHARD HARRINGTON
Courtesy of "The Beaver"

AN ARABIAN PROVERB

*He who knows and knows not that he knows
is asleep; awaken him.*

*He who knows not and knows that he knows
not is simple; teach him.*

*He who knows not and knows not that he knows
not is a fool; shun him.*

*He who knows and knows that he knows
is wise; follow him unto the end.*





R. P. LOWERY, D.D.S.,
Toronto, Ontario.

President of the Ontario Dental Association.
Chairman of the Publications Committee
Canadian Dental Association

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, JULY, 1947

NO. 7

Dental Caries Among British Columbia and Saskatchewan School Children

by F. W. HANLEY, M.D.* and L. B. PETT, Ph.D., M.D.†

From the Nutrition Division,
Department of National Health and Welfare.

Progress towards the control and complete prevention of dental caries in our population is slow. Although it is the most wide-spread of all diseases and one which appears early in life, it is still one of the least understood¹.

Theories of the cause of dental caries are numerous; many have a substantial backing of observation and experiment. Which hypothesis or group of hypotheses will be found to be correct cannot at the moment be stated, although it is agreed that nutritional factors play a large part during the pre-natal and childhood periods. The precise role of nutrition, however, has yet to be determined¹⁻³. An approach which may help to throw light not so much on the direct causes of caries but on the way these causes are modified and affected by other factors is the epidemiological. This type of study, by indicating what conditions of environment, constitution, past history, etc., affect the incidence of caries may give valuable leads to possible origins of the disease itself. It will certainly provide a picture of the extent of the problem, which is necessary before any planned action is to be undertaken for its solution.

The observations presented here were made during nutrition surveys among school children in British Columbia and Saskatchewan in 1946. These surveys included physical examinations and laboratory investigations as well as dietary records. Because of the established connection between caries and diet, a qualitative examination for the former was included in every physical inspection. This has made it possible to relate these data on caries to others, such as area, sex, age, past rickets, and diet, obtained in the survey.

Examinations were made on 1,678‡ children, aged 5 to 14, in British Columbia, and on 1,465‡ children, aged 5 to 19 in Saskatchewan. In both provinces five representative areas were studied. Prior to the physical examination individual diet records were taken for a one-week period, under the direction of specially qualified nutritionists. These records were designed to give qualitative information on food habits, but some of the data are semi-quantitative. The physical inspection included careful examination of the tongue, gums, lips, and skeletal system. The teeth were examined without aid of instruments, for gross caries. Both untreated caries

* Medical Officer and † Chief of the Nutrition Division.

‡ All types of data, such as age, food habits, were not obtained from all these.

and restorations were counted, but missing teeth were not. No attempt was made to count individual cavities, but the number of carious teeth was noted and graded according to the scheme:

Grade 1, moderate caries—from four carious teeth to caries in half the molars and bicuspid.

Grade 2, marked caries—from caries in half the molars and bicuspid to

Grade 3, extreme caries—only a few sound teeth of any kind remaining.

This classification is concerned only with the *number of carious teeth*, not with the degree of cavitation. This grading was chosen because the molars and bicuspid are the first to become carious in the majority of cases. Although arbitrary and rough, it affords a basis for comparison of different groupings.

OBSERVATIONS

(1) *Relationship between caries and geographical location*—Table 1 shows that total caries incidence was much higher in British Columbia than in Saskatchewan, being found in 71.2

per cent of the children examined in the former province and in only 47.1 per cent in the latter. The Saskatchewan area having the highest incidence of caries (Prince Albert, 55.1 per cent) was well below the British Columbia area having least incidence (Fraser Valley, 65.5 per cent). Of all the areas studied, the highest incidence was found in Vancouver and Prince George, while the lowest incidence occurred in Swift Current. These findings show quantitatively a marked difference between the two provinces, bearing out previous impressions of practising dentists. Since there has been a considerable migration from the prairies to the coast over the past few years, the incidence of caries among children born and brought up in British Columbia is probably higher than these figures indicate.

The distribution of marked and extreme caries and the ratio of marked to moderate caries are also shown in Table 1. The amount of Grade 2 caries tends to be proportional to the incidence of Grade 1 caries, but this relationship varies considerably as shown in the last column of the table. Marked caries is absolutely about

TABLE I

INCIDENCE OF CARIES IN DIFFERENT AREAS OF SASKATCHEWAN AND BRITISH COLUMBIA

Area	Per Cent Caries			Total	Ratio Gr. 2/Gr. 1 (Per cent)
	Grade 1	Grade 2	Grade 3		
British Columbia	60.0	11.0	0.2	71.2	18.4
Vancouver	51.8	21.8	4.2	77.8	42.1
Nanaimo	57.3	10.7	0.4	68.4	18.7
Fraser Valley	62.6	2.9	0	65.5	4.6
Prince George	68.7	7.7	0	76.4	11.2
Vernon	68.4	3.1	0	71.5	4.5
Saskatchewan	43.9	3.2		47.1	7.3
Prince Albert	51.2	3.9		55.1	7.6
Rosetown	47.7	3.9		51.6	8.2
Swift Current	35.6	1.4		37.0	3.9
Foam Lake	42.0	1.9		43.9	4.5
Regina	42.1	4.9		47.0	8.6

three times as common in British Columbia as in Saskatchewan, although relative to moderate caries it is about 2.5 times as common. The areas of highest and lowest incidence of marked caries correspond to those for moderate caries, i.e. Vancouver (21.8 per cent) and Swift Current (1.4 per cent). Marked caries is 15.5 times as prevalent in Vancouver as in Swift Current.

Extreme caries occurred in only two areas, both in British Columbia.

(2) *Incidence of caries in rural and urban areas*—Adequate data on rural or urban status was obtained only for the Saskatchewan children, although in British Columbia the Vancouver and Nanaimo children were almost exclusively urban, while the others

were mainly rural. In Saskatchewan the more detailed grouping shown in Table 2 indicates that grade 1, grade 2, and total caries all have a higher incidence in urban than in rural children. The increased incidence of total caries in city children amounts to about 25 per cent of the rural figure. There is also some indication that marked caries tend to have a disproportionately high incidence in the urban areas (last column).

(3) *Sex and age differences*—

Figures for the incidence at different ages of all degrees of caries in males and females (Table 3) show that there is no appreciable sex difference for caries among Saskatchewan children. In British Columbia there is an indication that total caries

TABLE 2
COMPARATIVE INCIDENCE OF CARIES IN RURAL AND URBAN AREAS IN SASKATCHEWAN
(Ages 5 - 19 incl.)

	Number examined	Grade 1 (Per cent)	Grade 2 (Per cent)	Total (Per cent)	Ratio Gr. 2/Gr. 1 (Per cent)
Rural.....	597	38.2	2.5	40.7	6.5
Urban.....	854	47.9	3.5	51.4	7.3

TABLE 3
RELATION BETWEEN AGE, SEX AND TOTAL CARIES

Incidence of Caries (all grades)

(as a Percentage of the Total Number of Children Examined in Each Age and Sex Group) By Age and Sex for Saskatchewan and British Columbia

Age	Saskatchewan			British Columbia		
	Male	Female	Both Sexes	Male	Female	Both sexes
	(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)
6	49	52	51	66	58	62
7	48	48	48	67	76	72
8	56	48	52	73	76	74
9	52	53	53	72	78	75
10	53	51	52	70	79	74
11	45	43	43	68	67	68
12	42	36	39	72	75	73
13	33	34	34			
14	23	30	27			
15	40	58	48			
Average....	47.0	46.6	46.8	69.8	73.0	71.4

is more prevalent among females, especially in the age group 7-10 inclusive (Table 4).

is noteworthy that it occurs three years earlier in British Columbia. Thus, where the general incidence of

TABLE 4
RELATION BETWEEN SEX AND SEVERITY OF CARIES

Saskatchewan
(Age 6-15)

	Grade 1		Grade 2		Ratio Gr. 2/Gr. 1
	No.	%	No.	%	(Per cent)
Male.....	302	44.7	16	2.4	5.4
Female.....	325	43.3	25	3.3	7.6

British Columbia
(Age 6 - 12)

	Grade 1		Grade 2		Grade 3		Ratio Gr. 2/Gr. 1
	No.	%	No.	%	No.	%	(Per cent)
Male.....	426	59.5	71	9.9	3	0.4	16.6
Female.....	434	61.5	81	11.5	0	0	18.7

In both provinces, females have a slightly higher incidence of marked caries, both absolute and proportional to the incidence of moderate caries.

The incidence of caries at different ages shows several interesting features. When the total caries, all grades and both sexes (columns 4 and 7, Table 3), are plotted against age, the best fitting curves are very similar for each province, differing mainly in the heights of the ordinates (Fig. 1). Each is parabolic in shape, rising to a peak between ages 8 and 10 and then falling. The fall is almost certainly due to loss of carious teeth, a loss which takes place at a much greater rate than the development of caries in previously sound teeth.

In both provinces the curves show a sharp up trend at a definite age—11 in the case of British Columbia and 14 in the case of Saskatchewan. This is the result of caries activity in the (remaining) permanent teeth. It

caries was higher its activity occurred at an earlier age. It would appear that the delay of this spurt in Saskatchewan allows time for most of the carious teeth to be removed.

(4) *Relation between caries and national origin—*

All figures are for Saskatchewan with the exception of those for the Chinese and Sikh groups.

Compared with provincial averages, English, Scots and Sikhs have a higher incidence of total caries and Netherlanders have a much lower incidence. The ratio of marked to moderate caries shows a great variation.

(5) *Relation between caries and previous rickets—*

Among those with signs of definite past rickets in each province, a somewhat higher percentage had dental caries than among the group considered as a whole. Thus, in Saskatchewan, 56 per cent of those who had had rickets had dental caries, whereas only 47.1 per cent of the

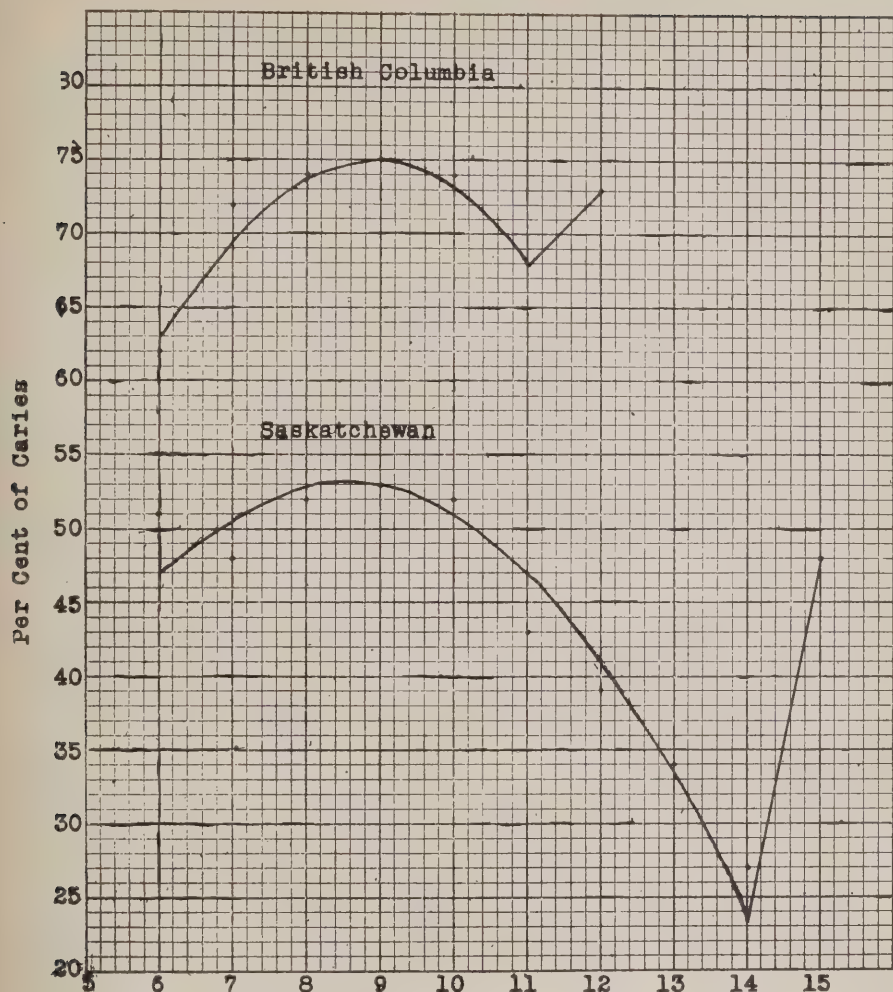


FIG. 1

whole group was so affected. In British Columbia the general incidence of caries was 71.2 per cent, but among those who had had rickets it was 79 per cent.

On the other hand, evidence of previous rickets was far more common among children without caries than it was among those with caries at the time of the survey.

(6) *Relation between caries and food habits*—Since food habits, if they influence the development of dental caries, operate over a long period before showing effects, it would not be

expected that a single one-week record would show any significant differences between those with and without caries. This was found. Comparison of the food habits of those pupils having caries with the habits of the whole group show little. In Saskatchewan, children with caries showed a tendency to eat more refined cereal, but fewer had "poor diets" as classified in this survey.

Considering each province as a whole, the food habits of the British Columbia children were considerably better with regard to milk than were

TABLE 5

INCIDENCE OF CARIES IN DIFFERENT NATIONAL GROUPS

	Grade 1		Grade 2		Total		Ratio Gr. 2/Gr. 1
	No.	%	No.	%	No.	%	(Per cent)
American.....	15	54	0	0*	15	54	0
"Canadian".....	45	48	5	5.3	50	53	11.1
Chinese (Vancouver).....	120	76	4	2.6	124	79	3.3
English.....	145	55	13	4.9	158	60	9.0
French.....	15	44	2	5.9	17	50	13.3
German.....	46	38	4	3.3	50	41	8.7
Irish.....	54	44	3	2.5	57	47	5.6
Icelandic.....	14	40	2	5.7	16	46	14.3
Netherlanders.....	22	32	2	2.9	24	35	9.1
Norwegian.....	15	42	0	0	15	42	0
Polish.....	38	45	1	1.2	39	46	2.6
Scotch.....	85	59	1	0.7	86	60	1.2
Sikhs (B.C.).....	21	81	2	7.7	23	89	9.5
Ukrainian.....	81	41	5	2.5	86	43	6.2

TABLE 6

RELATIONSHIP BETWEEN DENTAL CARIES AND RICKETS

	Saskatchewan	British Columbia
Per cent with rickets who had caries.....	56	79
Per cent total caries (all children).....	47.1	71.2
Per cent rickets among children with caries.....	5.5	11.6
Per cent rickets among children without rickets.....	51	58

those of the Saskatchewan children. Thus, a total of 84 per cent of British Columbia children recorded an intake of milk above minimum (130 oz. per week), as compared with a total of only 65 per cent of Saskatchewan children.

SUMMARY

1. Dental caries among comparable groups of school children in British Columbia and Saskatchewan was recorded during two nutrition surveys in 1945-46.

2. Caries was found in 71 per cent of the children in British Columbia and 47 per cent of those in Saskatchewan.

3. Caries tended to be more prevalent among urban children.

4. The incidence of caries shows a definite relationship to age. The percentage of children having carious

teeth in the mouth reaches a peak between ages 8 and 10 in both provinces, then falls, and begins to increase sharply again at age 11 in British Columbia and age 14 in Saskatchewan.

5. Groups of various national extractions showed little difference with the exception of four, three of which had a higher incidence and one of which had a lower incidence.

6. Children who had rickets showed a slightly greater susceptibility to caries.

7. There was no significant relationship between caries incidence and the food habits at the time of the survey.

REFERENCES

- (1) Nutrition Reviews, 5, 3, 68, March 1947.
- (2) Mann et al., Jour. Am. Dental Assoc., 34, 4, 245, February 1947.

patient is yours and you cannot get him to leave the office until he has signed his card and the patients he refers will come prepared to sign their

cards. A practice welded together by continuous patient contact is a happy practice.

2487 BLOOR STREET WEST.

FOOD SUPPLY

In all research dealing with the food supply, it is clear that the economic aspects cannot be neglected. Since malnutrition is most prevalent among low-income groups, cheaper as well as more nutritious foods are called for. This means all possible economies in production and distribution, particularly in the case of the more nutritious and preferred products. But attention to low-cost foods which are widely consumed, though not outstanding in any particular nutrient, is also important. Potatoes are such a food. If all the potatoes consumed in the United States in 1945 contained, as eaten, the vitamin C present when they were dug, over half the recommended allowance for our entire population would thus have been met. Unfortunately, most of it was lost before it got to the table. The actual amount of the losses is not known, but they can be as high as 50 per cent or more in storage, depending on how the potatoes are stored and for how long, and from 15 to 50 per cent or more of what is left can be lost in cooking. A substantial part of these losses could be prevented. Potatoes, as now marketed and consumed, do not get the credit they deserve in terms of vitamin C content, but more attention to conserving the nutritive values of this cheap, everyday food would do much to improve nutrition where the need is greatest, namely, among the low-income groups. It would greatly increase the value attached to potatoes as an article of the diet. Cooking losses must be accepted, but they can be reduced by taking advantage of facts now established. Storage losses merit much more study. In terms of national nutrition, foods which are rich sources of a given nutrient may be less important than a poor source which, because of its much larger consumption, makes a larger per capita contribution of the nutrient in question.—Leonard A. Maynard, Director, School of Nutrition, Cornell University—in Science.

If You Feel You Are Not as Popular as You Would Like to Be, Check on:

1. The sincerity of your smile.
2. The warmth of your handclasp.
3. The neatness of your appearance.
4. The tolerance you have of others' opinions.
5. The gentleness of your voice.
6. The readiness you display to listen.
7. The importance you place on keeping your promises.
8. The length of your temper.
9. The eagerness to increase your interests, and above all
10. The interest you display in the welfare of others.

—Dr. James F. Bender, Director,
The National Institute for Human Relations
in Dental Assistant.—

We have been practicing dentistry under smoky pine-knot illumination while the rest of the world has progressed to the stage of fog-penetrating light and infra-red ray photography. The mechanics of dentistry and research studies in aetiology and progress of dental disease have shown marked advancement while the vehicle of distribution, the dental office practice, has been neglected. —W. N. Miller in *Tic*.

A YEAR'S RETROSPECT IN INSTITUTIONAL WORK

by J. T. CAIRNS, D.D.S., Provincial Hospital, North Battleford, Saskatchewan.

A FULL time dentist is a necessity in any hospital or institution of 1000 patients or more. This was brought forcibly home to me on taking over as a full time dentist in a mental hospital of nearly 2000 patients. The dental service had been very sketchy and pretty well limited to emergency work, and those patients who complained. Consequently the greater part of the dentistry necessary was never done and probably not recognized. Imagine the condition of mouths that had never had any dental work done for 10-15-20 and even 25 years. Imagine the amount of dentistry crying out to be done.

Having spent several months on emergency work, we now have the dental treatment systematized. Every new admission is examined, charted, radiographed if necessary, and the necessary work completed as soon as the patient is physically or mentally able. Then the patients who are discharged are sent home dentally fit, if at all possible. This is quite important. Such patients, after varying lengths of time in the hospital, are now to undergo a difficult period of adjustment; they are under great strains and tensions, and a failure may well set them back months or perhaps forever, in their recovery. Consequently being edentulous, or having an aching tooth, or several abscessed teeth, or some broken down anteriors that give the patient any trouble or worry might easily tip the scales the wrong way, and the medical staff concur in the opinion. Finally, there is the large body of patients who will remain in the hospital for longer periods of time. They are conveniently grouped on wards. We go to the wards, examine and chart the

patients there, and as time allows, we make one ward dentally fit before going on to another. In the past year several such wards were completed. With such completion and a check on outgoing and incoming patients, no one is overlooked in the dental picture.

I do not believe, in spite of literature to the contrary, that dental infection, i.e., several abscessed teeth, an impacted tooth or pulpitis can, of itself, cause mental disease. Of course, such infection has a profound effect on the physical health, and, this in turn, may influence mental health, but dental infection *per se* is very far down in the scale as a cause of mental illnesses. Nevertheless, dentistry has an uplifting effect on mental patients. In the first place, they feel that someone is taking an interest in them, that their complaints do not fall on deaf ears. It helps their ego. It was a surprise to me to note the difference that dentures made to patients who had been edentulous for years. You couldn't help but realize that these people care, that they were just as sensitive, in fact probably more sensitive about their appearance than normal people. They are vitally interested in all phases of dentistry, discuss their new teeth with their neighbour, recount the story of their extraction and proudly exhibit their new filling. Then too, they are indeed grateful and we cannot help but have a feeling of satisfaction in doing work for them.

This interest was further evidenced by a round table discussion of dentistry in the Group Psychotherapy Class. Group psychotherapy is one of the latest approaches to the problems of the patient. A group of patients meet and freely and frankly discuss

their behaviour, their fears, their delusions, and their problems. With the skilful direction of the psychiatrist, these discussions ease the conflicts and tensions in the mind of the patient, in fact, even to tell about them, to bring them out into the open, helps greatly. In this group I told them about some phases of dentistry, how teeth decay, how to brush their teeth, and then a picture of what we were trying to do for them while they were here. The discussion was interesting; many told of why they were afraid to go to a dentist; they told what they expected of a dentist and so on. Without exception, each one in the group contributed something; they were interested in the care and preservation of their own teeth and in dentistry in general.

Everyone in private practice could learn a great deal about patient management from time spent in a mental hospital. For here are the same people as outside with but exaggerated or enlarged reactions. It is never necessary to use force or coercion. The patient that is decidedly uncooperative today often is a model of cooperation two weeks hence, and this cycle of excitement and depression is found to greater or lesser extent in people outside, and when recognized can easily be turned to good advantage. Sedation before appointments is not used extensively; when needed $1\frac{1}{2}$ to three grains of nembutal are usually prescribed because of a greater drug tolerance of many of these patients. Local anaesthesia is used for all operative work, and often makes all the difference between doing a job and not doing it at all, for while the reaction to pain is dulled in some patients, it is correspondingly heightened in others. Short appointments were found to be more satisfactory than trying to do much at one time; in a protracted session the patients often get restless and the necessary operator-patient rapport is lost.

Patients sometimes have a definite

psychosis with their teeth the object of their delusions. One young lady complained bitterly and emotionally, day after day, about vague yet severe pain in all her teeth, every test plus radiography showed no signs of dental disease, still she complained till the days stretched into months, and it was difficult to persuade her to vacate the dental chair, she wanted all her teeth removed. Indeed the question arose whether it might not be advisable to extract them. But after such procedure the pain is invariably transferred elsewhere, to a region in close proximity to where the teeth once were. It is interesting to note that after a prefrontal lobotomy, this young lady no longer complains of her teeth. It is indeed only evading the question to extract a tooth that you know is sound just because a patient complains of it. Only too often the pain is transferred to the next tooth and so on, and after they are all extracted, to the place where they once were.

Another case comes to mind that is interesting from a psychiatric as well as a dental angle. Let us call the patient Mr. White. He came to the dental clinic, being put on the priority list for dentures by the Clinical Director. On examination he was wearing a lower denture which, most obviously, was not his. It did seem to touch his ridge in one spot only. He insisted he wore it all the time, that it was quite efficient, and that he would like an upper denture to go with it. By degrees his story came out. His friend of many years on the ward had died, and as White was edentulous, had bequeathed him his dentures. For some considerable time White used and wore these dentures, though how he did so is a marvel if the upper was no better than the lower. One day the upper denture disappeared and White became greatly concerned. This concern persisted and deepened, and took the form of a persecution complex, he believed that a particular attendant had done away

with his plate in order to persecute him. This preyed on his mind so much that he finally attempted suicide, believing that life was not worth while without his second hand upper plate. The attempt was almost successful, but he was discovered just in time, and now with his own dentures he has been happy for a year. Fantastic! Nevertheless true!

There are some conditions that would be an interesting field for research when time allows. For example, I have never seen a case of Vincent's angina in over one thousand patients examined in the past twelve months, in fact, the gingiva and mucosa are invariably in a quite healthy condition. What is the reason for this? What a change from the ever present and ever recurring Vincent's in the Army! Then too, healing after surgery seems to be quicker and without the usual complications. During the twelve month period, I treated but one dry socket and know the incidence would be higher in private practice. Again, what is the reason?—it would be an interesting speculation.

As one is not working against time, hurrying to be ready for the next appointment or trying to finish this out of town patient today, more time was given to each operation. In the year, we totalled some 1500 extractions, 120 dentures, 600 fillings and 300 prophylaxes. A good deal of extra time was spent with the denture patients. It was not enough to dismiss them with the usual words of advice. They were seen every day for a week following the insertion of the dentures. Often nothing was done, but always the fact impressed upon them that they must keep their dentures in

for the next 24 hours. Usually, at the end of a week, the dentures were accepted as part of themselves and subsequent checks at the end of two and three weeks proved the efficacy of this routine. During this period the proper care and cleaning of the dentures was taught and this was found necessary because breakages were very high.

During the past year over thirty general anaesthetics were given by the medical staff for extractions. In all cases sodium pentothal, given intravenously was used. From the dentist's standpoint, this is an ideal anaesthetic. There is no excitement stage, the period of induction short and recovery rapid. Of course, there are definite contraindications for its use and one must be skilled in administering it, but there were no untoward incidents in this series of cases, and it was used for operations of a rather prolonged nature, i.e., the extraction of an impacted third molar in the line of fracture of a mandible, and the subsequent wiring of the maxilla and mandible in a nonco-operative patient, the operating time being 50 minutes.

Though the remuneration for practice in an institution is below that obtained from private practice, still there are many compensations hard to measure in terms of money. Some of these are regular hours and days of work, regular holidays, no bills to collect, and a feeling of security as one gets older because of superannuation; and one can get much satisfaction in doing a job for a mental patient, and also much appreciation from them, which is always a stimulus to better things.

The biologic phase of dentistry in a modern concept must not only supersede, but engulf its technical pursuits. Only by the correct application of the latter principles to biologic phases can technology be successful.—S. C. MILLER in *Jour. of D. Medicine*.

A CRUISE ON THE MISSION SHIP "RENDEZVOUS"

by R. S. ROSE, D.D.S., Campbell River, B.C.

BETWEEN Vancouver Island and the mainland, about midway up the east coast of the island, lies one of the most beautiful and scenic stretches of water to be found anywhere on either of Canada's coasts. Large and small islands of surpassing loveliness make a maze of inlets, passages and fjords which provide the traveller with water and mountain scenery unexcelled.

In these islands reside a considerable population engaged in fishing, logging and some small farming operations. Here and there small community centres have sprung up, each consisting, in most cases, of two or three dwellings, a store and post office and perhaps an oil station. People living on nearby islands and adjacent settlements come by boat and woodland trail to purchase supplies, collect mail and have a few hours of friendly intercourse with distant neighbours.

For some years past the Anglican Church has maintained in this area the Mission Ship "Rendezvous", a cabin cruiser of approximately ten tons, commanded by Reverend R. M. Boas and based at Whaletown, a small fishing village on Cortes Island. This stout and comfortable little craft, plying between the various island settlements, brings comfort to the needy, help for the sick, and in numerous ways dispenses cheer and assistance to these isolated communities.

Having decided to enter practice at Campbell River, on the east coast of Vancouver Island and adjacent to this area, I had the privilege of meeting Reverend Mr. Boas shortly after coming to the district.

When he learned that he had made the acquaintance of a dentist, Mr. Boas

at once realized that here was a chance to extend the services of his mission into a field he had not, as yet, entered. He at once suggested that I take a week's cruise with him on the "Rendezvous", taking along some sort of portable equipment with the object of rendering dental treatment to the residents of some of the outlying settlements which he serves.

At this time I was awaiting the completion of the building which was to house my office and as this showed no signs of being ready for occupancy for some weeks, the invitation was readily accepted and plans made to gather together equipment with which some operative work might be done. As most of the operative instruments and a considerable amount of supplies had already arrived for the office, a selection was made and packed in a large suitcase. Everything necessary to do extractions, amalgam and silicate fillings was taken along, as well as a portable gasoline stove and various pans and vessels to use for sterilization etc. Mr. Boas was able to supply the chair as some well-wishing friend had presented the Mission with an S.S.W. portable chair which was, of course, ideal for the purpose. Dr. Christie of Courtenay very kindly loaned a foot engine.

Thus equipped, arrangements were made to start on Monday morning, May 27, 1946. We were instructed to meet the "Rendezvous" at Heriot Bay on the east side of Quadra Island which lies directly across Discovery Passage from Campbell River. (Fig. 1.)

Mrs. Rose had decided to come with us, so at 7:45 A.M. we left Campbell River wharf by water taxi (a small

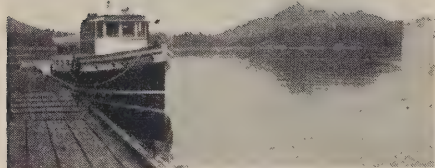


Fig. 1. "Rendezvous" at Heriot Bay Wharf.

launch) landing a few minutes later at Quathiaske Cove from where we drove five miles across Quadra Island in a very decrepit Ford truck. Apart from the fact that it was raining slightly and the truck cab had room for only one passenger, necessitating open air transportation for myself, the trip was uneventful and we arrived at Heriot Bay at the appointed time but before the arrival of the "Rendezvous". Taking shelter in the small store we telephoned Whaletown, receiving the information that our ship was on the way and in a short time she hove in sight, making her usual steady seven knots.

Although it was still raining, there was promise of clearing skies and we set out for our first port of call at Surge Narrows. We arrived about 10 A.M. after about an hour's cruise past lovely little bays and rocky headlands with the snow capped mountains of the mainland in the distance.

It had been decided that the cabin of the "Rendezvous" was rather small in which to set up the equipment and also provide living quarters for three people, so operating space was found in a back room of the store and post office. (Fig. 2.). Here several patients were seen and a number of badly needed extractions and several amalgam fillings were done. Even under these rather crude conditions it was possible, with care, to carry out aseptic surgery and all fillings were placed under the rubber dam.



Fig. 2. Building in which Clinic was held at Surge Narrows

About 5 P.M. we packed up the equipment, stowed it aboard and set sail for Shoal Bay. This requires the passage through the Surge Narrows' tidal rapids, which for sheer thrill excelled anything I had yet experienced. The passage, though not particularly narrow, lies between high mountains and the dark, swirling water has the appearance of slowly moving black syrup. We passed through at about half tide or less, although at the height of its flow, the speed of the water may reach nine miles per hour. The experience at any time is one to be remembered. The tide was ebbing when we went through and therefore running with us but the eddies and whirlpools tossed the little "Rendezvous" about at will. Steering a straight course became an impossibility and at times, with the wheel hard a-port, she would stubbornly move steadily to starboard. Several miles of this brought us finally into less agitated waters which broadened out into a beautiful expanse of calm summer sea, flanked on either side by towering snow capped mountains.

Shoal Bay is about twenty-five miles by water from Surge Narrows and the rain having stopped during the afternoon, our run from 5 to 9 P.M. was delightful. The further we went the more rugged the mountains became until on our arrival at Shoal Bay we tied up for the night at the head of a veritable fjord. Here we

found a small store and post office and one or two dwellings served by a Government wharf, to which we tied the "Rendezvous". After carrying the equipment up to the store where the next day's clinic was to be held, we turned in for our first night on board. (Fig. 3).



Fig. 3. Building in which Clinic was held at Shoal Bay.

Tuesday morning, May 28, saw us up early and making ready for the day's work. The room used to work in was in the upstairs of the store and from the window of this operating room the view of mountains and sea was so beautiful that some valuable time was lost admiring it. Nevertheless, a number of patients were seen, the work consisting mostly of fillings. Evidence of neglect due to the impossibility of getting timely treatment was apparent.

Stuart Island lies some ten miles in a south-easterly direction from Shoal Bay and in order to be ready for work there the next day, we left early in the evening. Fine weather still remained with us and on the trip to Stuart Island we bucked the Yucalta tidal rapids, another experience similar to Surge Narrows. (Fig. 4).

Upon arrival the clinic was set up in the living-room of a residence adjoining the store which was perched high on the all but perpendicular side of a rocky promontory. Although I saw a few patients, the volume of treatment given was small. We left

rather early in the afternoon of May 29 in order to make the longer run to Whaletown before dark, as Mr. Boas



Fig. 4. View of small harbour at Stuart Island, "Rendezvous" farthest from camera.

wished to return there before proceeding to our next port of call. Of all the cruise this part of the trip was perhaps the most enjoyable. The weather was ideal and the sea calm while we travelled at a leisurely pace with plenty of time to reach our destination. Soon after leaving Stuart Island Mr. Boas served a delicious buffet dinner in the wheel house where we spent most of our time watching the ever changing view.

On Thursday we left Whaletown early in the morning, arriving at Redonda Bay about eleven o'clock. There is a large cannery here and a large Indian population. In fact, with one exception, all patients here were Indians and mostly children. In the clinic, next door to the first aid post, every effort was made to do as much as possible for these children but several had to be left unattended due to lack of time.

Squirrel Cove, our last port of call, proved rather disappointing as there had been some misunderstanding as to our arrival date. Treatment given, however, was much appreciated and it was felt that even the short time spent there was worth while.

Returning to Whaletown on Friday evening, May 31, we spent the night there and set out for Campbell River

on the morning of June 1. This leg of the journey had one most interesting sequence. In order to reach Campbell River from Whaletown the "Rendezvous" had to pass around Cape Mudge. This passage in stormy weather would be impossible for small craft as the sea off Cape Mudge is notorious for its rough water and dangerous shoals. Fine weather held for us, however, and we ended a most enjoyable trip by arriving home in time for lunch.

I regretted that no systematic check or observation could be made with reference to the incidence of caries in the mouths of residents of these communities. Neither was any reliable information available as to their dietary habits. It will be realized that on a trip of this nature, where only some thirty people were seen out of a population of perhaps two thousand, no very accurate idea could be gained of general mouth conditions. However, in subsequent months of practice in Campbell River, many people from these districts have visited my office and a general observation would indicate that as far as these particular districts are concerned, lack of opportunity to get needed dental attention is responsible

for most of the poor mouth conditions encountered. Dietary habits should be much the same in these places as in other rural communities and food stocks displayed in the stores appeared to be about the same as those available in other rural districts. Vegetables are easily grown and should be plentiful enough. The great problem appears to be that most of these people are so out of touch with centres where dental treatment can be obtained that the great majority receive little or no attention until diseased conditions have reached the irreparable stage. One fact observed may be worthy of special mention. Among patients treated on the cruise and those seen in the subsequent eight months of practice in Campbell River, only two rather mild cases of Vincent's Infection have been encountered. No explanation for this is offered other than that often advanced, that urban centres present more favourable conditions for the spread of this disease than isolated and rural communities.

NOTE:—The writer wishes to acknowledge with thanks information as to tides etc., given by W. R. Hall of Campbell River. All distances referred to are nautical miles.

The difference between the practice of the dental surgeon and the dental technician is quite clear. One is based on the science of living tissues, biological science, the other on the science of non-living materials, physical science. Each man has his own special contribution to make to the restitution of function to an organ, the human dentition, which of course should never have reached the stage where it needed artificial substitutes for its natural components. With this fundamental concept clear there is a pressing need for mutual co-operation and understanding so that each in his own sphere may make the maximum contribution to their mutual objective.—From editorial in New Zealand D. Jour., Jan., 1947.

Dentists are not expected to and do not wish to prescribe for or to treat general disease. But they must distinguish diseases of the mouth acting as focal sources of infection in other tissues from general diseases expressing themselves as lesions in the mouth. Dentists, in other words, must recognize whether a pathologic condition of the mouth is the source of a disease or the indirect expression of a disease.

The surgeon perforce must know biologic and modern medical procedures; the dentist should at least be aware of them.—From editorial in Dental Digest.

ANNOUNCEMENTS

Northern Ontario Dental Association

Meeting will be held on Saturday, September 6, at Kirkland Lake, Ontario.
President: Dr. Percy Hill *Secretary:* Dr. Norman Downer

Eastern Ontario Dental Association

Meeting to be held in Chateau Laurier in Ottawa on September 21, 22, 23.
President: Dr. L. R. Braden *Secretary:* Dr. Aimé Couture

Montreal Dental Club Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration covering Immediate Dentures, Endodontia, Children's Dentistry, Local Anaesthesia, Porcelain, Acrylics, Amalgam, Office Management, Crown and Bridge and Operative Dentistry. Two progressive clinics of three sessions each on Periodontia and Full Denture Prosthesis will also be given as well as table clinics and essays and papers on diversified subjects of special interest to the profession.

Amongst clinicians appearing will be Dr. H. D. Grubb, Cleveland, Ohio; Dr. F. W. Stevens, Philadelphia, Pa.; Dr. I. H. Ante, Toronto, Ont.; Dr. H. Spiro, Chicago, Ill.; and Dr. R. B. Munn, Milwaukee, Wis. A further list of clinicians will appear in a later issue of the Journal.

Hotel reservations should be made now direct to the hotel and attendance at the Fall Clinic should not be emphasized in making them.

Should other information be required or a preliminary program when ready address direct to

DR. M. L. DONIGAN,
 1414 Drummond St., Montreal, Quebec

Université de Montréal Graduate Course in Orthodontics

The next graduate course in Orthodontics will begin on September 15 1947. Lectures and clinics will be given in the English and French languages. Applications for this course should be sent in as soon as possible to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal (26), Qué. Canada.

Refresher Courses at Illinois

The University of Illinois College of Dentistry will offer seven refresher courses this fall starting September 8.

Dr. Isaac Schour, associate dean in charge of postgraduate studies, has announced that courses will be offered in "Complete Dentures," "Partial Dentures," "Oral Pathology, Diagnosis, and Surgery," "Root Canal Surgery and Periodontia," "Operative Dentistry," "Dentistry for Children," and "Crown and Bridge."

The courses will be offered in sequence, extending for a total of 12 weeks until November 28. Dentists may enroll in single courses, or may register for the complete program of 12 weeks.

The Forum

STEERING TOWARD DENTAL HEALTH

by FRANCES KRASNOW, Ph.D., New York, N.Y.

Condensed from Jour. of Dental Medicine, Jan., 1947.

Steering toward dental health means steering toward general health as well with the same factors to guard. Data collected at the Guggenheim Dental Clinic since 1933 attest to this tie-in of tooth condition with the over-all well being of the organism. Thus, the routine instituted for the control and prevention of dental disease has led to improvement in other ailments.

Essentially, the theme idea is correct living. Stress is laid on the following precepts:

1. Sound planning with striking saving of money and energy.

2. The use daily of the proper foods in correct proportion. For this purpose foods have been regrouped into five classes:

- (a) Milk freshly pasteurized or equivalent evaporated or dried, for children three to four glasses, for adolescents four or more, for adults three.

- (b) Cod liver oil as whole fish oil, one teaspoonful for everybody from one year of age, before that in graded amounts.

- (c) Vegetables and fruits are interchangeable according to market availability. They should be used mostly raw and in this form should always end the meal. All leaves of all vegetables except rhubarb are edible—the tougher outer ones in soup, meat pies, stews. Potatoes can be rightfully replaced only by root vegetables like beets, carrots and turnips, or for low caloric need by leafy vegetables. Corn,

macaroni, spaghetti, rice or other grain products can thus be avoided.

- (d) Solid non-vegetable, non-fruit foods should come primarily from eggs, fish or meat for low caloric requirements with choice from cheese, whole grain bread, whole grain cereal and certain legumes added and commensurably increased as the level rises. At all times, through adolescence, there should be only one portion of this group to 1.5 or 2.0 portions of the vegetable-fruit varieties. During adulthood, the ratio is varied from 1.0 to 1.5.

- (e) Water, a most important food for optional nutrition, induces a habit forming need and should be regularly developed from early childhood. One 8 ounce glass is added to the daily intake at each birthday until the age of six years, then kept so throughout life.

With balanced nutrition unequivocal and cost paramount in planning it, substitution of any of the foods listed by sodas, ice cream, candies, cookies and cake become inconsistent. Such products are low in desirable nutrients, divert funds from these foods, satisfy hunger by over distending the gastric lumen so that the appetite for necessary food is thwarted.

Soda concoctions are really expensive beyond the actual outlay of money which can be used for milk, fruit juices or whole fruit. Hygienic water is now provided as a public service in an ever increasing number of communities so that using sweetened carbonated or phosphated beverages multiplies mani-

fold the cost of genuine water. In addition, such drinks are apt to be otherwise harmful, especially for teeth, due to their free acidity.

Sugar (not only pure, but as cookies, cakes, candies, ice cream) dilutes the diet with empty calories which substitute calories from really essential foods and thereby deprives the body of vitamins, minerals, good proteins, carbohydrates and fats. Actually, too, sugar, cookies, cakes, candies and ice cream increase the need for calcium, phosphorus, iron, thiamin, riboflavin and niacin. These are required for the normal oxidation of sugar and so their deficiency is made more acute. Still further, sugar, cookies, cakes, candies, ice cream are deleterious locally to teeth susceptible to decay.

None of these can be assigned a true role in the daily intake. Ample carbohydrate and fat is obtained along with all other nutrients from intelligent choice of foods. Menus with such provision are regularly formulated in Guggenheim Dental Clinic routine. Most significant in attaining the goal in reeducation — active realignment of ideas not only of children in elementary and secondary schools or of college students, or even of patients, but also of teachers, nurses, physicians and dentists whether at work or at home. Practising the ways proposed to those seeking advice establishes a degree of confidence otherwise difficult to attain.

3. Regular and sufficient rest — enough to take one through the daily tasks, including recreation without feeling tired — 14 hours or more below

six years, at least 12 hours thence till 12 years, 10 throughout adolescence and not fewer than 8 hours during adulthood.

4. Abundant fresh air during work, play and sleep.

5. Chasing germs with cleanliness.

6. Regular annual medical check.

7. Regular dental examination every six months.

8. Securing information from authorized sources — the Physician, Dentist, School, Health Centre, Dental Clinic, American Medical Association, American Dental Association.

9. Planning for health and saving the cost of sickness.

To conclude we must rely less on proprietary preparations—locally applied and internally administered medicaments. To be sure therapeutic agents may give immediate relief but at best can be viewed only as temporary benefactors. The use of fluorine, Vitamin K, ammonium compounds for alleviating dental caries, are timely examples. Thus, fluorine employed topically on teeth or taken through water and bone meal has apparently reduced decay. However, none of the studies have reported relieving systemic malfunction along with improvement in the dental condition. Combined results are obtained when the total physiological picture is borne in mind.

In a recent check, 50 percent of 200 cases varying in the degree of their adherence to nutritional recommendations showed improved dental status, 80 percent derived both systemic and dental benefits.

THE APPARENT TIME ACCELERATION WITH AGE

Having for some time given a little attention to the physiology of aging and still having a fair memory at sixty-eight, I was more amused than instructed by the current discussion in SCIENCE of the apparent acceleration of time with advancing chronologic age. This discussion reminds one of

the old quip: "Married men do not live longer than bachelors, it just seems longer," of which the truth and the why depend on the individual (and his mate). When we eliminate amnesia for current events and make the comparison in matters of approximately equal desirability, anxiety and

boredom, there is no difference in the estimate of time speed at six and at sixty, so far as one can rely on memory. Death is obviously not in the category for comparison, because of the limited experience and understanding of youth. At the age of 7 to 10, when I greatly desired to reach the stature, the capacity and the dignity of a grown-up man, called to mind the prospect of a brief visit to my mother or longed for the end of the current day when sound slumber would shut out the perpetual baa-ah of the sheep in my care, the hours, weeks and years seemed *long* indeed. But in those same years a day's visit with mother, an hour in the swimming hole or fishing in the river passed with incredible speed. It is

purely a question of the item of particular concern (desirable or objectionable) in the thought of the individual. Age has nothing to do with the illusion. For now at sixty-eight, the days, weeks, months and years of war drag on as slowly as they did sixty years ago when I wanted to grow up in a hurry. Then, I wanted (above all things) to be a man. Now, I want (above all things) mankind at peace. The time to attain either seemed and seems unduly long. On the other hand, a day at fishing, now, an hour at attempting to teach, a conference with intelligent colleagues, verily, *tempus fugit*.

A. J. CARLSON

University of Chicago—From Science.

THE NEW ZEALAND SCHOOL DENTAL SERVICE

by R. M. S. TAYLOR, D.D.S. (N.Z.)

Principal Dental Officer, Auckland, N.Z.

Condensed from Australian J. of Dent., Jan., 1947

School Dental Nurses are never placed on the Register and may not be employed by a practising dentist, nor work under his supervision. They are not dentists and the possibility of their seeking registration does not arise.

The scale of salary and allowances has recently been improved, and the scale now is briefly:—

While a student, living in the hostel, £165.

On completion of training, £240.

By the fifth year after training, £350, with efficiency bars at £270 and £325.

Dental Nurse Inspectors and Tutor Sisters, 1st year, £385; second and subsequent years, £410.

Additional allowances may be paid to nurses in difficult or remote areas, and to the charge nurse where more than one nurse is at the same centre.

Nurses are trained in Health Educa-

tion, to do fillings in deciduous and permanent teeth, including the anterior teeth. They also do extractions of deciduous and permanent teeth.

The total professional staff at the present time is 629 persons.

The scope of the Service is from birth to about 14 years. In spite of war-time difficulties the Service has been extended downwards in the last six years and already about one-third of all children, between the ages of 2½ and 5 years (i.e., to school entrance), are under treatment. The pre-school group is rapidly growing and eighteen months ago numbered 22,000 such children. The first pre-school dental clinic to deal only with these little children was presented to the Service as a goodwill gesture by the New Zealand Dental Association. Every child under Service care is examined regularly at six monthly intervals and any necessary treatment given.

I would point out that only a frac-

tion of 1 per cent, if any, of the men graduates specialize in dentistry for young children. As the proportion of women to men graduates is so small it must follow that there will be a negligible number of women graduates in this specialty. Thus it is impossible to draw any conclusions regarding the psychological fitness of women, rather than men, for this work by reference to dental graduates. Whether women might do the work well, is not a matter of conjecture but an established fact. It has, beyond all doubt, been proved in New Zealand for 25

years. To the suggestion that women graduates be employed in the work I would say, "Certainly, get as many as you can, but you will still be up against the fact that graduates prefer a much wider scope for their technical skill than is provided by work for young children."

The School Dental Nurse, fully trained as she is in her own field of dentistry, has made an outstanding contribution towards our ideal, has earned her professional status and has raised the status of the dental profession in general.

THROMBOPLASTIC PROPERTIES OF PENICILLIN AND STREPTOMYCIN

by DAVID I. MACHT

Condensed from Science, March 21, 1947.

Moldavsky, Hasselbrook, and Cateno have described some interesting findings with the blood of patients receiving parenteral injections of penicillin. In a series of human subjects studies on the clotting of blood before and after administration of penicillin revealed that the clotting time was much shorter after injections of the antibiotic than the normal clotting time was before injection. In connection with a study of blood in haemophilia the present writer and Dr. Marcus Ostro repeated the observations on normal clinical subjects and confirmed the findings made by Moldavsky and his associates.

Over 200 experiments on blood coagulation were performed. The majority of the experiments were made on rabbits and cats; a few were also made with dogs' blood and still others with human patients' blood.

Amorphous penicillin of every brand examined produced marked acceleration of clotting time, whether injected intravenously or intramuscularly and even when administered by stomach tube mixed with amphogel. The onset of this property can be noted usually within 15 or 20 minutes after injection but in some cases is most marked about one hour after

The effect persists usually for several hours.

When the newly produced sodium salt of crystalline penicillin (C.S.C.) was examined, however, the thromboplastic effect was much less striking. According to the scientists in charge of preparing the crystalline substances, this preparation consists almost entirely of penicillin G. Penicillin G and penicillin F were much less thromboplastic in their efficiency than penicillins X and K. The most potent in this respect was X.

Streptomycin was found to be also markedly thromboplastic for blood of rabbits and cats.

In the light of many experiments, there can be no doubt as to the accuracy and importance of the observations first reported by Moldavsky and his associates.

The author was also impressed by the interesting fact that when rabbits were repeatedly used for experiments, the coagulation time of those animals was permanently shortened for long periods of time, so that for examination of new preparations fresh animals had to be employed. It was also interesting to learn that this shortening in coagulation time in rabbits and

cats could be antagonized and cancelled by suitable doses of discoumarol administered by stomach. It is the opinion of the present writer that, next to the chemotherapeutic properties of penicillin and streptomycin and their low toxicity, the most important pharmacological finding is their thromboplastic activity, which at first impresses the clinician as a very dangerous factor to be considered in their therapeutic use. Fortunately,

however, nature has provided such generous checks and balances as well as compensatory and reserve faculties to the higher animals that thrombotic accidents in medical practice after the use of penicillin are extremely rare. Nevertheless, such clinical reports are already cropping up, as, for instance, that by G. Frada, who reports four patients with embolic accidents attributed by him to increased coagulability of the blood due to penicillin.

GROUP PRACTICE

by JOHN OPPIE McCALL, D.D.S., New York, N.Y.

Condensed from N.Y. Jour. of D., May, 1947.

Only a small percentage of the total population are wealthy to the extent that they do not need to calculate carefully their dental costs in relation to other expenditures. The dental profession wants to serve not only this portion of the people but as many more as can be cared for within their respective incomes on a private practice basis. The lower we can reduce dental costs and still provide suitable incomes for dentists the greater will be the percentage of people who can be thus served.

The most economical method of conducting dental practice is group practice. In its simplest form it consists of a sharing of such facilities as reception room, x-ray chair and machine, services of certain office personnel, etc. Several dentists grouped together on such a basis may conduct their own practices, each independent of the others and each will reduce his initial office costs and annual overhead by the measures indicated.

However, there are other economies to be gained in a group such as I picture. I refer now to a division of the total practice into the basic types of treatment, such as Operative Dentistry, Periodontia, Prosthodontia, Oral Surgery, Pedodontia and Orthodontia. To this list, in such a group practice, must be added Diagnosis.

It is customary to discuss the advantages of this type of practice in terms of the superior service that can be made available to each patient. And it is a fact that when a group of dentists are brought together, each particularly competent in one field, patients will receive the best that can be found for them, always assuming that the key diagnostic work-up is also at the top level as regards quality.

On the question of costs the savings in such a practice are gained by the facility and rapidity as well as the excellence with which the services are rendered. It has been found that when a dentist concentrates on the performance of one kind of work he does it more rapidly than when he shifts from one type of service to another through the day. Under such circumstances the day's output of a group who divide the practice on a basis such as I have outlined, will run well beyond that attained by the same number of operators working independently, each giving various services to his patients. It is not necessary that all the dentists in the group be specialists in the full sense of the term, or that each limit himself to one branch of the practice. Interchange within certain branches is possible, but that should be on a day to

day basis with each dentist doing one kind of work throughout a day or several days in succession. Even under such a plan there will be improved output.

I propose that in the interests of economy, whose benefits can be shared by both dentist and patient,

dentists set up group practices either as simple office sharing groups or, preferably, as groups of specialists or partial specialists. In such a plan lies the greatest benefit to the people served and the ultimate greatest benefit to the dental profession both in financial reward and dignity.

THE GOAL OF THE BLUE CROSS

by HAROLD SWANBERG, B.S., M.D., F.A.C.P., Quincy, Illinois

Condensed from Mississippi Valley Medical Jour. per Medical Times

Hospital Service Associations, designed to sell hospitalization insurance at low cost, have had their real growth beginning in 1930. These plans were introduced during the great depression when hospitals were finding it difficult to secure endowments, gifts and paying patients.

Thousands of physicians throughout the country have been appalled at the steady advance of some of the Blue Cross Hospitalization Plans into the realm of medical practice.

Over 22,000,000 people in the United States (every sixth person) are now reported insured by the Blue Cross organizations.

In an effort to make the Blue Cross policies as attractive as possible, and therefore to sell them more easily, the policies in many communities are no longer limited to pure hospitalization. An ever increasing number of medical services are being included—anaesthetics, all laboratory and x-ray examinations, electrocardiograms, and even the field of therapeutics is being invaded by including physical therapy treatments, first aid treatment, x-ray therapy, etc. In other words, what started out to be pure hospitalization insurance now includes an increasing number of medical services, which properly can only be rendered by legally licensed physicians.

Wilmot Read, a well-known Pacific coast surgeon and Past-President of the Washington State Medical Society, aptly sums up this entire matter:

"We are now approaching the day

when physicians will be merely a class of skilled workers, readily hired and fired by the community health centre. The average practitioner should decide whether it would be worse to have compulsory health insurance providing cash benefits for medical care under government control or medical practice controlled by the Blue Cross and Hospital Corporations, delivered by salaried doctor-employees."

We feel that unless this steady inroad into the practice of medicine by hospitals is not stopped that it will eventually completely destroy the private practice of medicine, with resulting deterioration in all medical service. Most physicians feel that they, with their many years of training and experience, are best qualified to control the practice of medicine and that this should not be attempted by "any corporate, lay or government agency outside the medical profession." Physicians are frank in stating that they don't want to be classed as skilled labourers, readily hired and fired by the community health centre (Hospital), which will surely happen if medical practice becomes controlled by the Blue Cross or Hospital Corporations and is delivered by salaried, doctor-employees.

In other words, physicians in private practice are in the fight to help preserve private enterprise and don't want to be "swallowed up" by the Federal Government, The Blue Cross, or Hospital Corporations.

THE CAUSE AND CONTROL OF DENTAL CARIES

Summary of Brochure published by Com. on Research,
Northwestern University Dental School

Our present knowledge of dental decay makes it appear probable that severe damage to the teeth and health can be prevented in a large measure, but only by the fullest co-operation between the patient and the dentist.

An adequate program of prevention requires of the dentist:

1. That he be alert and painstaking to discover decay in its earliest stages and give proper attention to restoration.
2. That he instruct the patient in the best available procedures in home care.
3. That he use the preventive methods as soon as they have been proven effective.

The patient must:

1. Visit the dentist regularly for observation.

2. Select a proper diet and be cautious in eating or drinking sweets and in many cases reduce them to a minimum.

3. Learn to brush the teeth properly and consistently do it immediately after eating.

4. When immediate brushing is impossible, rinse the mouth thoroughly immediately after eating.

The hopes for the future are:

1. That a simple test may be universally used by dentists to measure the activity of decay.
2. That one of the enzyme inhibitors may be used in a simple way to prevent acid formation and consequent decay.
3. That large numbers of people will sufficiently interest themselves in preventing decay to improve the dental health of the nation.

IMPRESSION PROCEDURES AND MUCOSTATICS

by DONAL H. DRAPER, D.D.S., Indianapolis, Indiana

Conclusions of Paper in N. West. Dent. April, 1947.

1. Taking an impression and making a denture base that are accurate negatives of the ridge tissues in their normal passive form will always produce a stable, retentive and comfortable foundation for a denture.

2. Of the two types of impressions taken for denture appliance—pressure or non-pressure, stress or nonstress—the one most kindly received by the ridge tissues is the non-pressure or nonstress type.

3. All tissues are composed of either liquids or solids. Neither of these are compressible under normal prosthodontia loads.

4. Pascal's law and its three supplemental facts explain denture stability.

5. Interfacial form of surface ten-

sion is responsible for virtually all denture retention.

6. Vacuum, suction or atmospheric pressure accounts for the retention of a small percentage of ill-fitting dentures a short while following insertion.

7. Functional position of tissue is any position where the denture base makes uniform contact with the ridge tissues.

8. Tissue resiliency is the seating motion of an ill-fitting denture base under stress, followed by sudden rebound by the tissues attempting to regain their normal, passive, rest position.

9. Inevitable tissue resorption. — The resorption of ridge tissues has been so commonplace in past years,

most of us believe it to be inevitable. This is not true. Tissues not irritated do not resorb. Irritated and traumatized tissues do resorb.

10. The success of any impression procedure is in direct proportion to the accuracy of the occluding teeth which function upon the resulting base.

11. The more accurate the impression, the greater the demand for an accurate occlusion.

12. The value of any articulatory procedure is in inverse proportion to the amount of spot grinding necessary to balance the occlusion correctly when the case is inserted in the patient's mouth.

THE RELATIONSHIP OF THE DENTIST TO THE DOCTOR

by E. H. STOKES, M.D., Ch.M. (Sydney), F.R.A.C.P.

Excerpt from D. Jour. of Australia, Oct., 1946.

The dentist must be considered by the doctor to be a consultant rather than a mere mechanic because dentists are able to save important teeth and to eradicate infection by means other than extraction. The dental examination should include both clinical and radiological investigation. It is important to remember that edentulous mouths frequently contain root remnants, many of which are infected. The dentist must look for pulpless teeth, impacted teeth with their attending infections, infected cysts, residual infection of the alveolar process, gingivitis, periodontitis (pyorrhea alveolaris), ill-constructed dental work (such as overhanging fillings, poorly fitting crowns and bridges), periapical infection, dental caries and Vincent's infection. Particular attention should be paid to crowns because, as has been truly said: "Infected is the tooth that wears the crown."

Neither dentist nor doctor should give advice with regard to extractions after merely inspecting x-ray films of teeth. The teeth should be examined clinically by the dentist and the films correlated with the conditions found in the patient's mouth especially with regard to fillings and missing teeth, because even in the best circles the films of various patients may become mixed. In cases of arthritis all periodontal disease must be eliminated and abscessed teeth must be removed.

Should the patient be debilitated, an attempt should be made to improve the general resistance before extractions and then only one tooth should be removed at the first sitting and at least four days should be allowed before the next extraction. Should an exacerbation of the arthritic condition occur, a period of a week or more should elapse before the next extraction. After the first extraction two or three infected teeth could be removed but it is unwise to remove more than four teeth at a sitting. Sulphathiazole in doses of one gram every four hours may be administered for 24 hours before and after the extractions and sulphanilamide may be packed into the sockets provided that the patient is not sensitive to the sulpha drugs. The indiscriminate use of the sulpha drugs must be condemned because of the serious sequelae. A transient bacteraemia is said to occur after dental extractions and bacterial endocarditis has been reported as a sequel of extraction. Penicillin may be of value in cases where chronic valvular lesions of the heart are present and should be administered intramuscularly in doses of 25,000 units every four hours for a day before and after the extractions. Cultures should be made from the extracted teeth and a vaccine prepared because vaccines are often of value in cases of arthritis.

DIMENSIONAL CHANGES OF THE ACRYLIC RESIN DENTURE BASE

by ATA R. ATIYYAH, D.D.S., M.S.D.

Conclusions of paper in Northwestern Univ. Bul. Mch., 1947

The dimensional stability of experimental dentures, constructed from three commercial denture resins, has been studied in relation to the change in dimension caused by curing shrinkage and subsequent water absorption. The changes in four linear dimensions were measured: between the right and left cuspid regions, between the right and left second molar regions, and between the cuspid and second molar regions on each ridge. In addition, the change in vertical dimension during processing was measured. The following observations and conclusions are drawn from the data obtained:

1. An increase in vertical dimension of approximately 0.5 mm. was observed after processing. No significant difference in this change was found between any of the materials or between the methods of processing.
2. The change in vertical dimension appeared to depend upon the thickness of the flash which appeared during the processing.
3. The curing shrinkage between the second molar regions appeared to be slightly higher than in the other regions, but the difference is probably not significant clinically.
4. The denture expands in water by different amounts in different regions; conclusive evidence of warpage of the denture during storage in water was obtained.
5. Specimens moulded by the compression method showed slightly better dimensional stability during storage in water than did the specimens moulded by the injection method.

EDUCATIONAL ASPECTS OF DENTISTRY FOR CHILDREN

by HAROLD KANE ADDELSTON, D.D.S.

Excerpt from Jour. of D. for Children, 1st Quarter, 1947

I would like to offer some few suggestions that may guide the dentist in his relationship with children:

1. Call the child by his first name.
2. Use short, simple words.
3. Always be truthful.
4. Answer the child's questions in a sensible manner.
5. Make instructions explicit and brief.
6. Explain to the child what is going to be done, and how it will be done (and then do it, that way).
7. Rationalize your procedures to the child.
8. Use positive suggestions instead of negative ones.
9. Avoid words that suggest unpleasantness such as "pain" and "hurt."
10. Give praise and encouragement judiciously.
11. Do not criticize, tease, scold or threaten the child.
12. Use questions to engage the child in conversation.
13. Govern the language used according to the child's age.
14. Do not use "baby" talk.
15. Do not let your voice betray your emotions.
16. Give the child sufficient time to understand verbal instructions and to respond.
17. Avoid having instructions conveyed to the child through the parents whenever possible.
18. Above all, try to understand the child and use his language. Talk to him as to the intelligent individual that he is.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Wayne, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgecombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

Editorial

STARTING ON A LONG ROAD

"To my mind what industry vitally needs is increased production caused by a continuity of operations. This can only be brought about by a prompt change of mental attitude on the part of our citizens. Then I think a solution can be attained by proper new laws, fair to labour, management, customers and shareholders alike. The world, which we cherish, is passing through great and serious changes and has amassed enormous debts during the past ten years. It is now evident that we must work harder and longer and possibly accept less remuneration for our efforts. Only in this way, I think, can prosperity be continued." This quotation is taken from the address of Mr. Stanley, President of the International Nickel Company of Canada at its last annual meeting and contains much food for thought. If what industry vitally needs can only be brought about by a prompt change of mental attitude on the part of our citizens, one cannot help but wonder if this change will be forthcoming.

Our enormous Canadian debt is also referred to, a debt which was increased owing to World War II by \$20,255,865,966 (including demobilization and reconversion items to March 31). In addition, Canada, during war years, gave away \$3,230,452,079 in cash or goods. It all amounts to nearly \$2,000 for every man, woman and child in the Dominion.

When Mr. Stanley says that if prosperity is to continue, we must work harder and longer and possibly accept less remuneration for the same, the thought arises that if prosperity is dependent upon these conditions are we going to continue to be prosperous?

At time of writing there is a great weakness in the business world due to the uncertain costs of construction. This industry is operating at a relatively low rate due to high prices and overall increase since 1939 of 122%; high labour costs with a low output per man-power; pricing policies; poor supplies, and black markets. There is an enormous demand for homes but at a price below the present one. The revision in construction cost may be a painful process. An increase in business failures will be seen in coming months.

Competition in many lines in the business world will be increasingly keen. Real purchasing power is due to decline. Unemployment is likely to increase. When income falls off, the tendency is to withhold purchasing.

The London Times points out that in five leading democracies, the U.S., U.K., France, Canada and Sweden, the combined note issue has risen in terms of dollars from 13.7 billion in 1939 to 40 billion in 1946. The ratio of gold to currency and deposits has dropped from 39% to 15%. Confidence in money is not as strong as it was.

It is not our thought to paint too black a picture but to emphasize just a few of our everyday problems, in all of which, the dental profession is unalterably involved.

Even though there is a general lowering of prices, the final stabilization will probably be 50% above pre-war levels, which must make any dentist stop and think if his fees are approximately the same as in 1939. Furthermore, as purchasing power is reduced, collections will present difficulties which have been largely non-existent during the past few years. Credits must be watched from now on.

All of this adds up to the plan which has been suggested in these columns before, namely, that the Canadian Dental Association should have a Public Relations Officer who will give his whole time to the study of dental practice, dental economics, public relations of every kind and carry out experiments in various districts along these lines in order to arrive at the ideal method of professional procedure.

Mr. F. E. Andrews in the Atlantic Monthly points out that in the older dispensations, money could buy a loaf of bread and save a man from starving but that in this new era of more creative giving, money, alone, cannot buy the discovery of penicillin, that all that money can do is to release for creative work a man of vision and ability and give him tools. He further points that the real contribution comes from the man, who must give long years of patient searching, destined for delay, disappointment, and frequent failure, with only now and then a glimpse of a new truth which will benefit chiefly his fellow-man—if he does find it, and yet such giving is “an experiment well worth trying”.

If this reasoning has any message for this day and age of dentistry, it is that before us lie a multitude of experiments well worth trying and that funds should be provided to carry on with at least a few of them and at the moment, I am not referring to research as we ordinarily think of research

but rather studies in the methods of practice. There is so much to be accomplished in these fields and very little being done about it. Why not select the man and give him the "tools" and let him start on this long road!

M. H. G.

BOOK REVIEW

Practical Anaesthesia for Dental and Oral Surgery, Local and General, by Harry M. Seldin, D.D.S., F.I.C.D., F.I.C.A., Consulting Oral Surgeon, Harlem Hospital, New York City Cancer Institute, and at Peekskill Hospital, Peekskill, N.Y.; formerly Director of the Division of Dentistry, Department of Hospitals, City of New York. Third Edition. Thoroughly Revised, with 238 Illustrations. Published by the Macmillans in Canada, St. Martin's House, Toronto. Price \$8.50.

It is five years since the second edition of this text appeared and since then new data of major importance, due to the activity of research workers, have developed necessitating the rewriting of this book.

The following subjects are discussed, Anatomy, Anaesthetic Solutions, Preparation for Anaesthetization, Infiltration, Intraoral and Extraoral Block, Pulp Canal Therapy, Complications, Physical Diagnosis, Physiology of Inhalation Anaesthesia, Control of Respiration, Premedication, Armamentarium, Administration of Nitrous Oxide, Analgesia, Anoxemia, Ethylene, Cyclopropane, Vinethene, Ethyl Chloride, Intravenous Anaesthesia, and Resuscitation.

The presence and effects of hypoxemia or anoxemia in nitrous-oxide anaesthesia is fully discussed and, as a result of this newer knowledge, changes in technique are outlined. Many new illustrations have been added also

to make this text visually complete.

In a book of this dimension a reviewer could hardly agree with all the statements made. For instance in speaking of intraosseous injections the technique outlined is to make a 5 mm. incision to the bone, then to drill through the cortical plate and inject 1 cc. to 1.5 cc. of anaesthetic solution then wait two or three minutes before operating. The author then goes on to say that this method requires too much preparation, is too complicated, may cause considerable after pain and in fact is rarely necessary and is indicated only as a last resort, if at all. This reviewer disagrees with all of these statements, since in the group in which he has had the privilege of practising the interosseous injection is made many times every day and in very many cases is the method of choice. No incision is necessary if entrance is made through the hard part of the alveolus. It is practically never necessary to inject more than .5 cc. of anaesthetic solution and the operation is commenced almost immediately, nor is there any after pain if care is used not to burn the bone by drilling too rapidly. It is a great time saver and the results have proven wonderfully successful.

However, in spite of this marked difference of opinion on this subject, this book cannot help but prove most interesting and valuable to the dental practitioner, and many helpful suggestions will be found therein.

M.H.G.

ROYAL CANADIAN DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF DENTAL CORPS OFFICERS

RETIREMENTS

Rank, Name and Date	Civilian Address
Capt. O. E. Brunet, Oct., '46	100 Metcalfe St., Ottawa, Ont.
Capt. A. G. Brown, Feb., '47	1216 Montrose Ave., Victoria, B.C.
Capt. D. E. Cousins, Feb., '47	163 Margaret Ave., Wallaceburg, Ont.
Major J. P. Coupland, June, '46	Ottawa, Ont.
Capt. D. E. Fraser, Mar., '47	120 Allen St., Oakville, Ont.

Rank, Name and Date	Civilian Address
Capt. M. M. Roitman, Oct., '46	237A Yonge St., Toronto, Ont.
Capt. F. G. Stulberg, Feb., '47	Orange St., Clinton, Ont.
Capt. A. Schwartz, Jan., '47	Ashern, Man.
Capt. G. M. Tormey, June, '46	1538 Sherbrooke W., Montreal, Que.
Capt. D. W. Waterhouse, Feb., '47	30 Arthur St., Guelph, Ont.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

**A.D.A.-F.I.B. Meeting at Boston,
August 4th-8th**

The Canadian Dental Association will hold a dinner during the meeting at Boston on August 5 for the purpose of greeting the representatives of the British Dental Association in attendance. The dinner will be held in Parlour C of the Statler Hotel at 6.00 o'clock p.m. The Secretary would appreciate receiving the names of C.D.A. members who will be attending this meeting so that proper arrangements may be made for the dinner.

R.C.D.C. Pay Increases

Effective 1st April '47 responsibility allowance of \$60.00 per month has been authorized for Dental Officers of the Royal Canadian Dental Corps.

Candidates for appointment as dental officers who have held a license to practice in one of the Provinces of Canada for a minimum of 1 year shall be appointed to the rank of Captain. The pay and allowances for a married officer of this rank will now be \$340.00 per month.

In addition there are in effect progressive pay increases of \$15.00 per month after 3 years and a further \$15.00 per month after 6 years. Previous service in the same or higher rank, provided a continuous break in excess of 3 years has not occurred, is taken into account in determining the rate of pay.

Complete details and information can be secured from the Director General Dental Services, Army Headquarters, Ottawa, Ontario.

Dental Treatment Armed Services

Many practitioners have been performing dental operations for personnel of the Armed forces without prior authority. It is pointed out that, where personnel of the Navy, Army or Air Force request dental treatment authority must be obtained from the responsible officer of the Royal Canadian Dental Corps in the area.

The above regulation is applicable in all cases except.

- (a) For the relief of pain.
- (b) For the repair of broken dentures (reconstruction or alteration not included).

AUTHORIZING OFFICERS ARE AS FOLLOWS:

In the Provinces of Nova Scotia, New Bruns-

wick, Prince Edward Island and Quebec: Officer Commanding, No. 12 Coy RCDC, HMCS "Stadacona," Halifax, N.S.

In the Province of Ontario: Officer Commanding, No. 13 Coy RCDC, Central Air Command, Trenton, Ont.

In the Provinces of British Columbia, Alberta, Saskatchewan and Manitoba, North West Territories, and Yukon: Officer Commanding, No. 11 Coy RCDC, Rear Hq, Western Command, Calgary, Alberta.

Ontario Appoints New Representatives

At the annual meeting of the Royal College of Dental Surgeons of Ontario the following were appointed for Ontario to the Board of Governors of the Canadian Dental Association.

Dr. Harvey W. Reid.....	Toronto
Dr. G. H. Campbell.....	Orangeville
Dr. J. F. Giffen.....	London
Dr. S. J. Phillips.....	Oshawa

Doctors H. L. Field of Hamilton and F. A. Blatchford of Fort William were appointed as alternates.

**Ontario States Position on Collective
Bargaining**

The Ontario Board passed the following resolution at its recent meeting and forwarded the same to the appropriate provincial authorities.

Resolution: "Be it resolved that 'Whereas the Profession of Dentistry is a health profession for the governing of which the laws or rules of ordinary business are not appropriate,' and 'Whereas the Profession of Dentistry has its own Associations to which all dentists contribute membership fees,' and 'Whereas the qualifications to practise the Profession of Dentistry necessitate many years of intensive study with high matriculation requirements—it is the carefully studied opinion of this Board that compensation of and working conditions for these members of the Dental Profession who are employed on a salary basis should not be subjected to control or negotiation through any Labour Union, but that such employers either directly or through the intervention of persons possessing professional dental training, and that if necessary representation should be made with a view to having the appropriate legislation amended accordingly.'"

Survey of Dentists in Canada

The Department of National Health & Welfare has completed a survey of the dentists in Canada. This survey is extensive in character and breaks down the number of dentists according to municipalities across the Dominion. In the introduction it is stated that the present shortage of dentists is believed to be of a transitory nature owing to the swollen post-war demand and indications are such that sufficient graduates will be available to supply the demands of the immediate future unless some health legislation is introduced.

The location of dentists is shown as to urban and rural. The term urban is used with the

Census connotation meaning any incorporation whether as a city, town or village. On this basis, as of December 1946 it was found that 95.8 per cent were practising in urban centres. There was found to be 71 per cent concentration of dentists in cities of 10,000 population and over with a concentration of 39 per cent of the total population in these cities.

A large percentage of the information contained in this report was obtained from C.D.A. Headquarters. The break down of figures for all municipalities in Canada is valuable data for future use. The report is a very commendable one and it is hoped to make a limited distribution of this report in the near future.

NEWS FROM THE PROVINCES

QUEBEC

Montreal Dental Club

The fiftieth anniversary of the founding of this Club was most suitably observed at a meeting held on April 14 at the R.C.A.M.C. and R.C.D.C. Officers Mess which was kindly placed at the disposal of the Club through the courtesy of the Officer Commanding.

The feature of the evening was an historical review of the activities of the Club during its fifty years of existence presented by Dr. J. S. Dohan. The Club was originally founded in 1897 by seven dentists meeting in the office of the late Dr. Peter Brown and many of the trials and tribulations of these early years together with many of the outstanding contributions to the profession of dentistry were brought out in a most vivid and interesting manner by the speaker.

It was unanimously passed at this meeting that this review should be dedicated to Dr. Charles F. Morison, the sole remaining charter member of the Club and that a specially bound copy of it be presented to him.

Montreal Dental Nurses' and Assistants' Association

At the April meeting of this association the guest speaker was Miss Hilda Dullick of the National Committee of Mental Hygiene. Miss Dullick who served overseas for two years during the war gave a vivid description of some

of the effects of the blitz bombing and how often the carefree attitude of the children helped the parents through those awful times. Various effects on the children's mental and physical well-being were also described and we were left with a much clearer understanding of the cares and problems of the English people and a realization of what they are still suffering as a result of the war.

Guest speaker at the May meeting was Mrs. Mary B. Cudega, director of speech clinics at The Montreal General and The Children's Memorial Hospitals. She dwelt upon the growing child's speech problems and speech defects of adults in everyday conversation. Everyone certainly went away much more speech and voice conscious after this most interesting address.

OLIVE GOODENOUGH

BRITISH COLUMBIA

Victoria and District Dental Society

At the annual meeting of this Society, held on May 19, the following officers were elected:

President:.....Dr. J. Dimery Johnson
Vice-President:.....Dr. A. S. Webster
Secretary-Treasurer:.....Dr. D. Parfitt

Prizes for the Society's spring golf tournament were presented to the winners by Dr. A. S. Webster, Chairman of the Golf Committee. Dr. W. N. Westwood gave a report of dental treatment during the year at the Queen Alexandra Solarium.—Victoria Times.

Ninety Doctors Buy Vancouver Building

The 15-storey Medical Dental Building of Vancouver is being acquired by a company formed by 90 medical men for \$1,325,000. This price will retire a \$450,000 first mortgage, and leave after all expenses, a substantial sum for shareholders of Vancouver Properties, Ltd.

—Toronto Telegram.

ALBERTA

Scholarship Fund in Alberta

At the instigation of Dr. John Clay of Calgary, a Scholarship Fund is being promoted to help keep up a steady flow of teachers for the Faculty of Dentistry, University of Alberta. The idea is to assist young graduates, of not more than five years, to take post-graduate training at some other institution thus overcoming the problem of the school becoming inbred and ensuring well qualified teachers.

As of May 27 letters were being sent out to a number of men in Southern Alberta asking them to contribute annually, until further notice, the sum of \$50.00 each. At this date the following had agreed to contribute, Dr. J. W. Clay, Calgary; Dr. Leslie Allen, Lethbridge; Dr. E. M. Doyle, Calgary; Dr. H. L. Freeland, Calgary; Dr. R. R. McIntyre, Calgary; Dr. J. S. Stewart, Lethbridge, and Dr. J. Zimmerman, Calgary.

Dr. Decker Elected President

Dr. George E. Decker of Edmonton was elected President of the Kinsmen Club at the Annual Meeting of the Club, held May 30.

ONTARIO

Students of Faculty of Dentistry, Toronto, Honour Dean A. D. A. Mason

On the occasion of his retiring as Dean of the Faculty of Dentistry, University of Toronto, Dr. A. D. A. Mason was honoured at a gathering of the members of the staff and student body on April 30. President of the Students' Parliament, Mr. W. J. Dunn spoke briefly of Dean Mason's many and varied accomplishments, both in the field of Dentistry and in circles outside the profession. On behalf of the students he extended to Dr. Mason the best wishes for many happy years, and assured him

that each student under his deanship would cherish the memory of his long years of service to the Faculty of Dentistry. Mr. Dunn presented Dr. Mason with a silver tray with a suitable inscription on behalf of those assembled.

In his reply, Dean Mason expressed keen pleasure at and sincere thanks for the honour so bestowed on him, and stated that he was laying down the robes of office with mingled emotions. Comparing life to a series of high-ways and byways, Dr. Mason advised each student, starting out on his or her highway, to beware of pitfalls along the way, to live as rich a life as possible, and to have a Faith. Only by so doing can he or she feel satisfied with a life well spent as they turn on to the byways, as he is now about to do.

JAMES A. GUEST

Class 2T3

The twenty-fourth Reunion Dinner of this class was held at the Royal York Hotel on May 19 with Dr. Harold R. Skilling presiding.

The following officers were elected unanimously for the next year. President, Jess Fullerton; Vice-President, Bill McLean; Secretary, Don Gullett; Councillor member of Executive Committee, Bill Prendergast; Personnel of Council at large are—British Columbia, Dick McDougall; Alberta, Glen Pullar; Saskatchewan, Mabel Killens Connell; Manitoba, Dave McCord; Maritimes and Quebec, John Edgcombe; Ontario, Dwight Coons, Cyril May, Joe Boyd, Murray Purcell, L. Nuttall, St. Clair Wilson, Perce Hill, and Glen Mitten; Dental Corps and D.V.A., Elgin Wansbrough; United States, Percy Ross, F. J. A. Daly.

Sixty members were present at the dinner and much discussion took place regarding the program for the reunion next year which will be the quarter century celebration. The Executive received many suggestions that will be helpful in planning a suitable program.

This twenty-fifth anniversary of graduation can come only once in a lifetime. It should be the aim of each and every member of the class to attend and make the party the outstanding event in the class career. The Executive will work hard toward that end, but success will be achieved only with the co-operation and support of everyone.

Each member of the class is urged to be a committee of one to send in suggestions, to talk about the party whenever 2T3 members are

together and finally to resolve now to be at the Royal York Hotel on May 17, 1948

The class is signally honoured in having one of its members, Dr. R. P. Lowery, as President of the Ontario Dental Association on the occasion of its twenty-fifth anniversary of graduation.

Convention of Dental Laboratories Association

The fourth annual convention of the Dental Laboratories' Association of Ontario was held at the Royal York Hotel May 17-19, 1947. This was a highly successful meeting and the President, Mr. Wm. Taylor and his committees are to be congratulated. The arrangements were all that could be hoped for, and there was a remarkable growth in the attendance from earlier years.

At the dinner meeting held Saturday night Dr. Gordon Agnew, of West China Union University, gave a very instructive address on China and her place in world politics and the international responsibilities of the Western countries to the Orient. Dean Mason spoke on the cordial relationship that exists between the dental profession and the technicians, and stated that, through this cooperation, a better dental service was being rendered to patients. Among the guests who sat at the head table were representatives from the Ontario Dental Society and Toronto Academy of Dentistry. A very hearty ovation was given when Dr. Roy G. Ellis, newly appointed Dean of the Faculty of Dentistry, was introduced to the audience. Mr. H. G. Harris, of the Ash-Temple Company, gave an appropriate address and, on behalf of the Dental Trades Association, presented a gavel to the President.

A very happy incident happened when Lt.-Col. P. Hannaford of Ottawa, a member of the Association, was presented with an enlarged snapshot of himself taken with Viscount Alexander. Lt.-Col. Hannaford often acts as aide-de-camp to the Governor-General. This was a complete surprise to the Colonel and he responded in a pleasant and appropriate manner. At the Monday luncheon a very challenging address was given by Mr. John W. Fisher, one of Canada's top radio commentators, on the subject of "Canadian back room complex."

During the other sessions of the convention clinics and instructions were given which engrossed the attention of the members. Meetings



WILLIAM TAYLOR
Pres. Dental Laboratory Association
of Ontario.

of this calibre speak well for the organization and will be a means of developing in the province a group of highly trained technicians who wish not only to give the best service, but also desire to take their place as good citizens in the community.

A. D. A. MASON, D.D.S.

We are very grateful to Dr. Mason for taking time to write the above summary of our Laboratory Convention.

We have always had a high esteem for the Dean, his ability to understand the technicians' position, his whole-hearted support when any move was made to promote the status of the dental laboratory industry; when he sat with us and spoke at our conventions. His presence was a source of good-will and an inspiration to all of our members.

Even though Dr. Mason has retired from the office of Dean of the Faculty of Dentistry, we shall always consider him our friend and welcome him as an honoured guest at our conventions.

The following addresses and clinics were given at the convention, were most informative and gave evidence of intense research and study:—

MR. J. J. NEVIN, New York City.

Subject: "*New Efficiency in Laboratory Management.*"

MR. RUSSELL, COPEMAN, Montreal, Que.

Subject: "*Advanced Technique in the Copie Denture.*"

MR. J. GEORGE MACDONALD, Detroit, Mich.

Subject: "*New Formula for Acrylic Repairs.*"

MR. HARRY HALL, Philadelphia, Pa.

Subject: "*Muco Seal Full Denture Laboratory Technique.*"

At the annual business meeting, the following officers and board members were elected for the year 1947-48.

President:.....Wm. Taylor, Oshawa

Vice-President:.....Geoff. Tebbutt, Toronto

Secretary:.....H. C. Elliott, Toronto

Treasurer:.....J. R. Price, Toronto

BOARD: D. Rollaston, Toronto; Chas. E. Spence, Toronto; Chas. L. Daly, Toronto; Chas. Elliott, Hamilton; E. J. Powe, Woodstock; H. H. Posen, Toronto; D. Taylor, Kingston; A. E. Smith, Simcoe; Wm. L. Walker, Toronto; J. McManus, Windsor; R. C. Brown, Toronto.

WILLIAM L. WALKER

London Dental Society

The Annual Golf meet arranged for members and friends of this Society was held at Highland Golf Club, London, on June 5.

A good representation from the district turned out, including representatives from Chatham, Watford, St. Thomas, Aylmer, Woodstock, Brantford and Toronto. The Toronto guests were Drs. Arnold Mason, Don Gullett, Joe Johnson, Gordon Johnston, Sidney Woollett together with Charles McKenna, "Bud" Bauer, Chas. Peirce and Ed. Green. About forty turned out for golf and competition was good in spite of heavy going.

Over fifty sat down for a turkey dinner and an evening's sociability. Following dinner speeches were given by Dean Arnold Mason, Don Gullett, Joe Johnson, Al Moore and Frank Giffen.

Many fine prizes were distributed by Drs. Fred Baker and Oscar McCutcheon. The S. A.

Moore trophy went to Fred Baker for low gross and the S. S. White Cup was won by Bill Riseborough of St. Thomas for best net score. The dental dealers were especially generous with many excellent prizes which they contributed for competition.

This annual outing is the source of much good fellowship and the most recent occasion was no exception.

ART DAVIDSON, Secretary.

Sault Ste. Marie Dental Society

Members of this Society were hosts to a professional group from the Michigan State Dental Society at the Windsor Hotel on June 2. Personnel of the group were Dr. B. E. Luck, Lansing, Michigan; Dr. Kenneth A. Easlick, Ann Arbor, Michigan, and Dr. L. R. Main, St. Louis, Missouri. The subjects under discussion were respectively — "Oral Surgical Procedures," "Treatment following Accidental Injuries of the Anterior Teeth of Child Patients," and "Helpful Hints in Roentgenology." During the dinner hour Dr. Charles H. Jamieson, President of the Michigan State Dental Society was guest speaker.

A series of educational programs by this group was sponsored by the Bureau of Public Health Dentistry, Michigan Department of Health and the Michigan State Dental Society. It was a generous gesture to include this Canadian call which is greatly appreciated by Canadians and particularly by the Sault Ste. Marie Dental Society members who profited from a fine program.

Thunder Bay Dental Association

On May 5, Dr. Thomas N. Scott of Toronto gave two clinics before this Association. The first on planning, surveying and designing of partial dentures and the second on immediate denture service. The President, Dr. H. A. Saunders was in the chair.

Dr. Scott has been making a tour of northern and northwestern Ontario conducting clinics in the principal centres.

Essex County Dental Association

At the annual meeting of this Association held May 15, the following officers were elected:

President:.....Dr. Roy Perry

Vice-President:.....Dr. J. D. Scarfone

Secretary-Treasurer;.....Dr. Michael Strokon

EMPIRE NEWS

GREAT BRITAIN

Nomenclature

(Letter to Editor of British Dental Journal)

Sir: When the late George Northcroft, who could never tolerate the slipshod, was considering the title of the Society he was founding (The B.S.S.O.), he looked somewhat doubtfully at the word "Orthodontia." He therefore consulted several authorities on Greek. They were unanimously of opinion that it was incorrect, and that the right form was "Orthodontics," and this he adopted.

If the termination "—ia" is incorrect for "Orthodont—" it must be equally incorrect for

the names of the other dental specialties formed on the same lines which are soon to find places in the coming Act.

It would be unfortunate if they should be crystallized therein in such a form as to constitute a reproach on English dental scholarship.

Yours faithfully,

J. H. BADCOCK.

AUSTRALIA

Dentist in Cabinet

Cyril Chambers, former dental officer with the Australian Army has been appointed Minister for the Army in the Government Cabinet of the eighteenth Australian Parliament.

GENERAL NEWS

Western Canada Dental Society

This Society held its biennial Convention at Banff Springs Hotel, June 12-15. It was a most successful meeting with an enrolment of 373 including over 80 from British Columbia.

The following officers were elected:

President—

Dr. L. J. D. Fasken, Regina, Sask.

1st Vice-Pres.—

Dr. A. R. Hurst, Brandon, Man.

2nd Vice-Pres.—

Dr. John W. Clay, Calgary, Alta.

Secretary—

Dr. L. D. Haselton, Saskatoon, Sask.

Treasurer—

Dr. A. Singer, Saskatoon, Sask.

The next meeting will be held in Saskatoon in the spring of 1949.

New Correspondent for our Journal in New Zealand

Owing to the fact that Professor Burt has found it impossible to continue as Empire Correspondent for our Journal, we are pleased to announce that Professor J. P. Walsh, M.B., B.S., B.D.Sc.(Melb.), L.D.S. (Vic.), of the University of Otago, Dunedin, has kindly consented to represent us in the Dominion of New Zealand. We most heartily welcome Dr. Walsh to our Journal staff and trust that through his

association with us that our two countries, though separated by many miles, may be drawn ever closer together, and that the exchange of dental information may prove mutually profitable.

Pertinent Points About Penicillin

by B. F. Gurney, M.S.,

Dept. of Chemistry and Physiology, Chicago College of D. Surg.
Condensed from Illinois D. Jour., March 1947.

Soon after penicillin was produced in quantities large enough to allow unhampered investigation, it was discovered that the drug was really a mixture. Chemical and clinical evidence pointed unquestionably to this conclusion, and within a reasonably short time four different penicillins, F, G, X and K were isolated and identified. As a result of this, the commercial production of penicillin may be on the verge of a rather marked revolution. Not only has the identity of penicillins F, G, X, and K been established, but also their molecular structures have been almost conclusively determined. With the synthesis of an agent thus far proven to be identical with penicillin G, the path is now open for direct chemical synthesis of the penicillins in pure crystalline form.

This would be a great step forward in the production of penicillin, for at the present time the marketed product is contaminated with a substance, Chrysogenin, which has successfully

defied removal without destruction of the anti-biotic. This is also the agent responsible for the colour of the drug. Undue effort has been spent in attempts to remove this objectionable material for its presence is believed to be responsible for the instability of penicillin solutions and even penicillin itself.

Penicillin undoubtedly is one of the greatest therapeutic agents of the time, but look ahead a moment to approaching possibilities. Now that synthetic penicillin G has been made, it is entirely possible that new and better penicillins may be synthesized which possess activities greater than that of the present standard, penicillin G. Then too, there is evidence that development of Streptomycin awaits only the solution of technical problems involved in commercial production of it on a scale that will permit unbridled experimentation. Since it is known to be active against gram positive and gram negative organism it is possible that Streptomycin may yet rise to challenge the standing of penicillin. And there are others, such as Subtilin, Bacatrin and Tyrothrycin, to say nothing about the possible come-back of the sulphonamides, all of which will bear watching as the science of chemo-therapy progresses.

Editor of French Dental Journal, Maurice Roy, Dies

Maurice Roy, editor of *L'Odontologie*, French dental journal, died January 5, 1947, at the age of 81.

Dr. Roy has been Editor-in-Chief of *L'Odontologie* since 1906 and Manager of the publication since 1923. The Journal is published by the French Dental Society.

Dr. Roy also was Director of the Faculty of *L'Ecole Dentaire de Paris* and had been one of the founders of the *Fédération Dentaire Nationale* and of the *Fédération Dentaire Internationale*. He was one of the first vice-presidents of the latter organization.

Disability Plan Pays

The Disability Plan of the Chicago Dental Society now has been in effect for eighteen months. Approximately sixty per cent of the active eligible members are enrolled. In this period a total of three hundred and nine claims have been reported. The actual paid cases total

\$66,584.80. This amount has been paid out as follows: 152 under \$200; 83 from \$200 to \$500; 13 from \$500 to \$1,000; 3 from \$1,000 to \$2,000; 3 from \$2,000 to \$3,000 and 3 from \$3,000 to \$4,000.

The cases of the more serious type drew correspondingly large amounts. One member drew \$3,822.50 for various ailments. Another member drew \$3,662.50 when stricken with phlebitis. A payment of \$3,528.27 was made on a heart case. Of the fourteen cases reported in this bracket, four were attributable to heart disease of various kinds. The above payments are only up to date and further payments will be made, as all the aforementioned are still disabled.—*F. Rev. of Cbi. D. Soc.*

Communities Now Using Fluorine in Drinking Water

According to the Journal of the American Dental Association, fluorine studies are now being conducted in five cities in the United States and one in Canada. In each case one part per million has been added to the commercial water supply.

The cities conducting the studies are: Grand Rapids and Midland, Michigan; Sheboygan, Wisconsin; Newburgh, New York; Evanston, Illinois, and Brantford, Canada.

The Journal warns that the addition of sodium fluoride to drinking water to inhibit caries among children is still largely experimental and should not be attempted on a universal basis.

150 Dentists Meet at Harrison

On May 18 nearly 150 dentists from British Columbia, Washington, Oregon, Idaho and Montana gathered at Harrison Hot Springs for the first meeting in Canada of the Northwest Conference in Dental Medicine.

Association of Dental Schools

The American Association of Dental Schools held its 24th Annual Meeting in Chicago, June 23-25.

The principal speakers were Paul Eklopsteg of North Western University whose topic was "Government Support of Research and its Implications," and George D. Stoddard, President of the University of Illinois.

The Basic Medical Sciences in Graduate Training in Oral Surgery

By Carl W. Waldron, D.D.S., M.D.,
Minneapolis, Minn.

"The American College of Surgeons has made an intensive study of graduate training in surgery and in the numerous specialties of surgery. Under the direction of an illustrious committee of nationally known surgeons, fundamental requirements and minimum standards were established to ensure a general and widespread improvement in graduate training in surgery together with an increase in the opportunities available by affiliation with teaching hospitals. The primary purpose of all activities of the College is the general elevation of surgical standards with the ideal of making available to the greatest possible number of people the benefits of the best surgical care and scientific knowledge.

"The emphasis of modern surgery is now on physiology and biochemistry with the result that morbidity and mortality rates are steadily declining by virtue of improved preoperative management, safer anaesthesia, improved treatment of shock and better postoperative care.

"The present programs in four universities will accommodate but a limited number of graduate students: probably less than twenty-five. Several hundred applications have been made for enrolment in these courses which lead to a graduate degree. It becomes obvious that the situation may be handled by adopting the concept of the College of Surgeons program which is based on the assumption that probably less than one-third of the graduate students will qualify for an advanced degree. It is further evident that adequate basic science instruction can be arranged for in more than two hundred hospitals approved by the College of Surgeons in which the amount of inpatient and outpatient material justifies a graduate program in oral surgery.

"It is the duty and responsibility as well as the privilege of the experienced oral surgeons of America on behalf of the public and the returning dental officers to support unselfishly and wholeheartedly the new approved programs for hospital dental services, internships and residencies. They should enter actively into the reorganization of these programs and into the organization of new services and thus uphold the best tradition of the healing art."

Basil G. Bibby to head Eastman Dental Dispensary

Basil G. Bibby, Dean of Tufts Dental School has been appointed Director of the Eastman Dental Dispensary, in Rochester, N.Y. He took over his duties June 1.

Dr. Bibby was born in New Zealand, and was graduated from the University of Otago in 1927. He came to the University of Rochester in 1930 as a Rockefeller fellow in Dentistry.

Wisconsin Health Board Gives Fluorination Policy

The Wisconsin State Board of Health at a recent meeting restated its policy on the subject of fluorination of city water supplies. The resolution adopted follows:

Controlled fluorination of drinking water appears to give promise of a substantial reduction in tooth decay to children whose mothers were ingesting protective amounts of fluorine during pregnancy and who, as infants and children, have continued to use water containing one to one and a half parts per million of fluorine during their first twelve years of life, and therefore the Board is in accord with having cities set up fluorination projects where acceptable controls are established and maintained.

IN MEMORIAM

Wilfred Murray Moyer, of Prince Albert, Saskatchewan, aged 49, died suddenly June 3. He was graduated from the School of Dentistry, University of Toronto, after serving in World War I. He was a member of the Army Dental Corps, in World War 2. He practised in Rosetown, Rock Glen, Kinis-

tino, and the last five years in Prince Albert. Dr. Moyer had been active in hockey, golf, curling and boxing. He was an executive member of the Cosmopolitan Club.

Dr. Moyer is survived by his widow, his mother, two sisters, and one brother.

IN MEMORIAM

Hugh S. Austin, formerly of Toronto and Acton, Ontario, and more recently of Tucson, Arizona, aged 48, died on May 31.

Dr. Austin was graduated from the Faculty of Dentistry, University of Toronto in 1933. In 1935 he began practice in Toronto. In 1942 he moved to Acton and in 1946 he moved to Tucson, Arizona, because of ill health. He obtained his B.Sc. (Dent) in 1941.

He was a member of Ashlar Lodge, A.F. & A.M. and of Walker Lodge, Acton. He was an accomplished musician, winning a gold medal in each of two musical contests at the Canadian National Exhibition, Toronto.

Dr. Austin suffered from his affliction but he never gave up in spite of a great handicap. He had a wonderful spirit which kept him going when most men would have quit.

He is survived by his widow, one sister and two brothers.

LeRoy H. Burgess, of Vancouver, B. C., aged 70, died May 14. Dr. Burgess had fractured his hip when he slipped on a snow-covered street several months ago.

Harry Miles Kinsman, Hamilton, Ontario, aged 65, died on June 6.

He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1905. He practised in Weston and Toronto in the year 1905 and 1906 respectively and in 1907 went to Hamilton where he continued to practise until his death.

He was a member of the United Church of Canada.

Dr. Kinsman is survived by his widow and one daughter.

Frederick Llewelyn Coleman, of Toronto, Ontario, died suddenly June 16. He was graduated from the Faculty of Dentistry, University of Toronto, in 1911.

He was associated with the Toronto Board of Health for the past 36 years.

He was a member of the Boulevard Club and Eglinton United Church.

Dr. Coleman is survived by his widow and a daughter.

Colin A. Lumsden, of Ottawa, Ontario, aged 40, died May 21. He was graduated from the Faculty of Dentistry, University of Toronto, 1931, following which he commenced practise in Ottawa.

He was organizer of the Ottawa Optimist Club, its first president, and former Governor of District 15, Optimists International. He was organizer of the first Air Cadet Squadron, the 51st Squadron, in the Ottawa district, and served for a time as regional chairman of the Air Cadet League of Canada.

At school he was a prominent athlete, playing baseball and hockey. Prior to his departure for Toronto University, he played semi-professional baseball with a Winnipeg team.

Dr. Lumsden is survived by his widow, two daughters, one son and his mother.

Vern D. Irwin, of the Dental Division of the U.S.A. Veterans' Administration, Minneapolis, aged 55, died May 7, at Des Moines, where he had gone to attend the Annual Meeting of the Iowa State Dental Society.

W. S. Allen, of Toronto, aged 66, of the firm of Allen and Rollaston, died suddenly June 2, which was a great shock to many personal and business friends. "Bill," as he was affectionately known by so many, was born in Yorkshire, England, and came to Toronto while quite young where he received his early education. That Mr. Allen was held in high esteem was evidenced by the large number of business and other friends who attended his funeral service at Kingston Road United Church, of which he was a member. His kindly manner, his ever willingness to oblige and his undoubted ability won for him both confidence and good will. Mr. Allen is survived by his widow and two sons.

H. Loukes, of Cobourg, Ontario, aged 47, died suddenly from a heart attack on May 15. He settled in Cobourg two years ago following his discharge from the army.

Dr. Loukes is survived by his widow, a son and four sisters.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

JUILLET, 1947

NO. 7

Préparation Psychique et Médicamenteuse du Patient Nerveux

par JEAN-PAUL LACHAPPELLE, B.A., D.D.S., L.C.D.

Professeur de matière médicale à la Faculté de Chirurgie Dentaire de l'Université de Montréal.

Un des plus grands ennuis, auquel le chirurgien-dentiste doit faire face dans sa pratique professionnelle, est, sans contredit, l'appréhension et la nervosité, parfois même, l'angoisse des personnes, qui se présentent à son cabinet en vue d'une intervention chirurgicale. Et, si l'opérateur n'est pas en mesure de réprimer cet état d'inquiétude et d'excitation de son patient, une intervention hâtive pourrait être pour lui-même une source de fatigues, de déboires, d'impatiences et voire même de nervosité. Et deux nerveux ensemble . . . pourraient bien devenir de bons acteurs dans une tragédie riche en événements fâcheux et en conséquences graves: accidents de toutes sortes . . . fractures, aiguilles brisées, lésions tissulaires etc . . ., avec la perte infaillible d'un patient que l'opérateur n'aura pas su préparer psychiquement et médicamenteusement.

Nous allons donc aborder ensemble—de façon brève toutefois—l'étude de ce problème complexe qu'est le nerveux ou le dentophobe vis-à-vis du chirurgien-dentiste, et, des moyens mis à la disposition de ce dernier qui lui assureront une meilleure coopération et par là, un meilleur succès opératoire.

Etude du nerveux

Le nerveux, lit-on, dans "Les tempéraments" du R. P. Rutché, C.S.S.P. est "un

passif; il est triste, soucieux et manque de courage. De coeur sensible, il faut le traiter avec bonté et ne jamais le rudoyer. Il est lent à convaincre; une fois convaincu, c'est pour toujours. Il a l'oeil triste, la démarche indécise. Il croit toujours avoir les pires maladies du monde . . . tout ce qui traite de médecine ou de pathologie interne l'intéresse beaucoup, car il croit y reconnaître toutes ses maladies. En un mot, c'est un être fermé, irrésolu, lâche, lent, embarrassé, orgueilleux et porté au pessimisme."

Les causes de cet état sont des plus variées. Cette nervosité—la plupart du temps—est simplement due à des facteurs psychiques. Elle peut être due également à un facteur d'éducation i.e. à une mauvaise formation du caractère.

Les facteurs: race, âge, sexe, degré de développement intellectuel, santé générale et maladies du système nerveux, entrent souvent en cause. Ainsi les gens d'origine latine sont plus sensibles à la douleur que ceux d'origine anglo-saxonne. C'est une constatation qu'il nous est personnellement donnée de faire au pays, puisque nous avons à traiter et des Canadiens-anglais et des Canadiens-français. Quant à l'âge, la nervosité est plus grande chez les jeunes et chez les adultes âgés que chez les gens d'âge moyen qui sont en possession de toute

leur énergie et qui jouissent d'un plus grand contrôle nerveux.

Le degré de développement intellectuel d'un individu est une chose importante à considérer dans l'appréhension nerveuse que ce sujet peut présenter en présence du médecin ou du dentiste. Un intellectuel a toujours mis ses centres nerveux en activité et ses activités cérébrales ont développé chez lui une plus grande susceptibilité de son système nerveux . . . "Il vibre" davantage, dit-on couramment, il est plus émotif que le manoeuvre qui a surtout développé ses forces physiques, ses biceps ou son thorax.

Mais ce qui importe le plus, c'est de savoir quels remèdes on doit apporter en face de ce patient ébranlé.

A—Préparation psychique

Tout d'abord, la création d'un milieu favorable est très importante, car une impression agréable va agir sur la subconscience de notre patient. Des réminiscences de philosophie, en psychologie rationnelle, viennent appuyer cette assertion: "L'information de la conscience se fait au moyen des sens".

L'apparence gaie du bureau et une contenance plaisante du dentiste et de ses aides contribuent beaucoup à diminuer l'irritabilité du patient. Distractions, suggestions agréables, persuasion confiante, explications comparatives etc . . . ont également leur importance.

En somme, il faut être aimable, gai, et l'on se doit de dérider et de "dé-crisper" son patient par un peu d'humeur ou de plaisanteries appropriées sans être déplacées toutefois. La distinction qui se présente avec un sourire sympathique est le meilleur gage de confiance.

La salle d'opération ne doit pas être trop nue ni trop encombrée. Le décor simple aura un bon effet sur l'appréhension du patient. Le sang répandu ici et là, les serviettes sales, le bruit, des instruments malpropres, en désordre ou trop exposés à la vue, voilà autant de détails qui peuvent impressionner de façon défavorable et même irriter ou énerver le patient déjà inquiet de son avenir immédiat.

L'appartement ne doit pas être ni trop

froid, ni trop chaud; l'éclairage sera effectif tout en étant assez discret. La conversation ne doit pas trop s'engager sur les phases opératoires ou les conséquences post-opératoires. Le choix du vocabulaire pour désigner les instruments est à considérer. Par exemple, au lieu de dire à l'assistante: "Passez-moi la pince", on peut fort bien dire: "Passez-moi le davier . . .", ou encore, au lieu de dire: "donnez-moi l'aiguille . . ." l'on peut dire: "donnez-moi le baril . . ." etc . . . en un mot, avoir un langage camouflé.

La sûreté de nos gestes, le confort du patient sur la chaise, et un abord agréable, gai, délicat, voilà encore autant de moyens qui vont gagner sa confiance. Si l'on n'a pas cette confiance, qui nous assure déjà un bon contrôle psychique de notre patient, on ne doit pas encore intervenir. Ce serait s'exposer à des ennuis parfois graves.

Pour l'enfant nerveux, les moyens d'approche, évidemment, ne seront pas tout à fait les mêmes que chez l'adulte, quoique la douceur, la patience, la persuasion soient des méthodes idéales. Mais parfois, si après tous ces essais, le jeune patient ne veut réellement pas coopérer, et que, pour une raison ou pour une autre, on ne peut intervenir sous anesthésie générale, on devra avoir recours à d'autres moyens plus énergiques, surtout si c'est l'éducation qui est responsable de cette désinvolture.

J'ai vu un pédodontiste avoir certains succès dans ce sens. Par exemple, une fillette de 8 ans qui ne voulait en aucune façon se laisser traiter. Le dentiste alors sortit une digue en caoutchouc qu'il feignit d'appliquer sur la bouche de l'enfant: crise plus violente alors de la part de la petite nerveuse, et la dentiste de lui dire: "Si tu veux te laisser traiter, le docteur ne te mettra pas ce masque."

La petite, pour éviter, dans son imagination, un plus grand mal, fut alors des plus sages . . . mais la digue était toujours sous les yeux de la petite, ce qui réprimait ses essais d'assaut ou ses velléités défensives.

Il y a sans doute d'autres méthodes qui peuvent s'avérer efficaces chez les enfants réfractaires, mais dans ce cas, on

pourrait aussi obtenir la collaboration des parents qui, par leur autorité, exigeraient de l'enfant cette docilité nécessaire pour notre intervention. Personnellement, je préfère ne jamais prendre un enfant "de force", surtout s'il est seul ou si les parents se refusent à se servir de leur autorité pour le besoin de la cause.

Tous ces moyens évidemment sont assez aléatoires et varient beaucoup selon les circonstances et les patients à traiter. Seuls le tact et la psychologie de l'opérateur peuvent lui inspirer le procédé effectif. De toute façon, comme règle générale, les patients trop nerveux—enfants ou adultes—sont des cas où l'anesthésie générale est fortement recommandée, surtout dans des cas d'exodontie ou de chirurgie, et, cette intervention de plus, pourra, et même dans certains cas, devra être précédée d'une judicieuse préparation médicamenteuse.

B—Préparation médicamenteuse

Parfois la nervosité du patient est telle, que la préparation psychique n'est pas suffisante, surtout chez les gens souffrant d'ébranlement du système nerveux, état qui pourrait amener des accidents graves et très ennuyeux: perte de connaissance, syncope respiratoire ou cardiaque etc... Ces patients méritent une attention toute spéciale. Les médicaments viendront alors à notre rescousse. On devra se servir de sédatifs ou d'hypnotiques qui auront un réel effet sur le système nerveux et par influence physiologique, sur les autres systèmes: digestif, urinaire, respiratoire, cardiaque, etc...

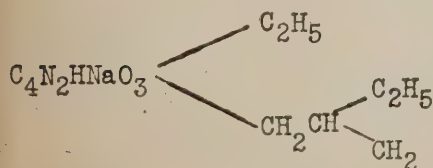
Les barbiturates sont les médicaments tout désignés à cette fin. Ce sont des dérivés de l'acide barbiturique.

Nous avons parmi les plus connus et les plus usuels:

Le barbital (véronal)

Le phénobarbital (luminal)

Le pentobarbital de sodium (nembutal, dont la formule chimique est:



Le pentobarbital de sodium est le plus sûr et le plus en usage en dentisterie, car c'est un sédatif, un hypnotique et un analgésique ayant tendance à déprimer les centres moteurs et à réduire leur irritabilité.

En réduisant la crainte et l'appréhension nerveuse, il nous donne la coopération du patient et nous permet de diminuer la dose usuelle d'anesthésique, et en même temps, de protéger le patient contre la toxicité.

Comme variétés de médicaments sédatifs et hypnotiques nous avons:

l'adaline (1 tablette—5 grs—1 hre avant l'opération)

luminal ($\frac{1}{2}$ à $1\frac{1}{2}$ gr.)

pyramidon (1 tablette—5 grs—1 hre avant l'opération)

sédol (1 cc.—voie hypodermique—1 hre avant l'opération)

nembutal de sodium ($\frac{3}{4}$ gr. à $1\frac{1}{2}$ gr.— $\frac{1}{2}$ hre avant l'opération)

les bromures (de sodium, de potassium, d'ammonium, 1 gr.—1 hre avant)

l'allonal (1 gr. 1 hre avant)

le véronal (5 à 10 grs. dans lait chaud)

l'amytal ($1\frac{1}{2}$ gr.)

le séconal ($1\frac{1}{2}$ gr.— $\frac{1}{2}$ hre avant l'opération)

le nembutal C ou de calcium—($1\frac{1}{2}$ gr. par la bouche, 5 à 10 minutes avant l'opération)

sonéryl (1 comprimé— $1\frac{1}{2}$ gr.— $\frac{1}{2}$ hre avant l'opération)

hexobarbital (1 tablette ou $1\frac{1}{2}$ tablettes (4 grs par tablette)

médinal (10 à 15 grains—buccalement) (10 grains—par voie hypodermique) (15 grains—par voie rectale)

veranion (6 à 12 grains—analgésique et sédatif)

Kapseals Carbrital—(opérations mineures — 2 comprimés — 1 hre avant)

Le nembutal de sodium est d'usage le plus courant—à dose de $\frac{3}{4}$ à $1\frac{1}{2}$ gr. par la bouche—20 à 30 minutes avant l'intervention. Le patient s'approche de la chaise avec une sensation de bien-être et de douce euphorie. La dose, dans toute

cette médication, varie d'après le poids, la taille, la robustesse, l'état de santé de chacun. Chez une femme en grossesse, toutefois, il est préférable de donner du sonéryl au lieu du nembutal.

Dans un cas d'anesthésie générale, chez un adulte, on donne habituellement 11½ gr. trente minutes avant l'intervention. Pour un homme très musclé, très robuste, ou habitué aux boissons alcooliques, il conviendrait de lui donner 11½ gr. de nembutal la veille de l'intervention et de 1 à 1½ gr. le matin même. Vous éviterez ainsi ces réactions violentes tant redoutées chez cette catégorie de patients.

Les patients maintenant qui présentent de l'idiosyncrasie à la procaine ou novocaïne, et qui ont une histoire de réaction à l'anesthésie locale, on peut donner ¾ gr. ou 1 gr. de pentobarbital de sodium, ce qui réduira ou éliminera ces tendances réactives, et nous assurera une anesthésie sans ennuis. Ceux qui montrent une difficulté persistante à l'anesthésie locale, ou une nervosité presque incontrôlable, on donnera jusqu'à 1½ gr. dans ces cas, et on accordera au patient un repos d'une demi-heure après, dans le bureau.

Quant aux dérivés de l'opium, ils sont surtout d'usage à l'hôpital où l'on donne au malade par exemple, ⅛, ¼ ou ½ gr. de sulfate de morphine, (c'est un alcaloïde de l'opium) et 1/150 d'atropine. L'atropine paralyse le nerf parasympathique qui innerve les muscles et les glandes, évitant ainsi les spasmes.

Dans des cas extrêmes et pour éviter des chocs graves, on peut donner de la morphine, à dose de 1/6 gr. en injection hypodermique ou buccalement, 45 minutes avant l'opération. La dose sera répétée ½ hre avant l'opération. Dans certains cas, il sera préférable de donner ¼ gr. de morphine, 1/150 d'atropine, dans une seule dose.

Mais en général, la médication à base de morphine doit être évitée. Si l'on doit en faire usage, on doit y aller avec beaucoup de prudence et de discernement. De plus, l'on doit apporter une attention spéciale aux personnes âgées ou très jeunes, car elles tolèrent mal cette drogue.

Donnons donc la préférence au nem-

butal de sodium pour la plupart de nos cas, et si l'on juge qu'un cas, en particulier, exige la morphine, on ne devrait en faire usage, par mesure de prudence, que sur l'avis du médecin traitant, car l'effet hypnotique de ce médicament nécessite de placer ces patients au lit et les expose aux nausées. Aux patients idiosyncrasiques à la morphine, on leur donnera du pantopon (un des alcaloïdes totaux de l'opium) — Une tablette de pantopon équivaut à 1/12 gr. de morphine et présente moins d'ennuis pour le patient. La dose doit être deux fois celle de la morphine.

Après cette préparation psychique et médicamenteuse, notre sujet nerveux sera devenu docile pour l'opération et... l'on aura causé moins d'appréhension chez le patient pour les interventions futures. Car, nous aurons gagné sa confiance exclusive, tout en nous étant assuré un patient fidèle pour l'avenir. Permettez en guise de conclusion, que je vous rapporte textuellement ce que le Dr Georges Hébert, M.D. recommande dans le Formulaire de l'Hôpital Notre-Dame de Montréal, au chapitre de la médication hypnotique pré-anesthésique.

"1—But de la médication hypnotique pré-anesthésique:

- 1—Diminuer ou annihiler la crainte, l'angoisse du malade et la phase d'agitation du début de l'anesthésie.
- 2—Eviter l'irritation et les sécrétions des voies respiratoires.
- 3—Augmenter la résolution musculaire.
- 4—Prévenir les spasmes trachéo-bronchiques.
- 5—Réduire au strict minimum la dose d'anesthésique nécessaire pour chaque intervention.

"2—Contre-indications générales relatives:

Pas ou peu d'hypnotique dans les cas suivants:

- 1—Enfants jeunes—1 à 10 ans.
- 2—Les vieillards.
- 3—Les diabétiques, les urémiques, les hépatiques, les septicémiques et les grands traumatisés.
- 4—Idiosyncrasie médicamenteuse.
- 5—Anesthésie de base à l'avertine et rachianesthésie.

"3—Criteriums pour la dose à employer:

La dose est basée sur l'âge du malade, son psychisme, la gravité de ses tares organiques, la durée de l'intervention et le genre d'anesthésie.

"4—Heure de l'injection:

L'injection sous-cutanée d'un hypnotique doit être donnée une heure avant l'opération pour obtenir l'effet désiré.

"5—Hypnotiques usuels avec différents anesthésiques:**1—Cyclopropane (C^3H^6) et protoxyde d'azote (N^2O)**

H.M.C. (no. 1)

Bromhydrate d'hyoscine.....1/100 gr.

Bromhydrate de morphine.....1/4 gr.

Cactoïde1/60 gr.

Sous-Cutane
ou

H.M.C. (no. 2)

Bromhydrate d'hyoscine.....1/200 gr.

Bromhydrate de morphine.....1/8 gr.

Cactoïde1/120 gr.

Sous-Cutane

2—Ether:

Chlorhydrate de morphine1/4 gr.

Sulfate d'atropine1/150 gr.

Sous-Cutane

On associe l'atropine à la morphine avant l'anesthésie à l'éther, dans le but de tarir les sécrétions bronchiques et l'éviter les spasmes.

3—Ether et Chloroforme:

Chez les sujets d'âge moyen, dont l'état général est bon on emploie avec avantage:

Chlorhydrate de morphine1/4 gr.

Sulfate d'atropine1/150 gr.

Sulfate de strychnine1/30 gr.

Sous-Cutane

4—Chloroforme: ($CHCl^3$):

Dans les cas plus rares où le chloroforme seul est employé, il vaut mieux ne pas donner d'hypnotique pour éviter une

action dépressive marquée des centres circulatoires et respiratoires, on emploiera plutôt le sulfate de strychnine—1/30 gr.

5—Avertin: (CBr^3CH^2OH):

Cette anesthésie de base, devant être complétée par le cyclopropane ou l'éther, il est préférable de ne pas donner d'hypnotique pour ne pas déprimer outre mesure l'appareil respiratoire.

6—Rachianesthésie:

Dans ce mode d'anesthésie, l'injection de morphine n'est indiquée que chez les anxieux, à la condition qu'ils ne soient pas hypotendus.

La veille de l'opération, on prescrit souvent au coucher des hypnotiques "per os" avec breuvage chaud.

"Les barbituriques hypnotiques de synthèse, plus ou moins complexes," dérivés de la malonylurée sont les plus employés.

1—Phényléthylmalonylurée0.10 g.

(luminal ou gardenal)

2—Diallylmalonylurée0.10 g.

(dial)

3—Dutyléthylmalonylurée0.10 g.

(sonéryl)

4—Pento-barbital sodium0.10 g.

(11½ gr.) (nembutal)

5—Ortal-sodiumOg.05 (¾ gr.)

Ortal-sodiumOg.20 (3 gr.)

Ortal-sodiumOg.30 (5 gr.)

BIBLIOGRAPHIE

Dr G. de Montigny, B.A., D.D.S., M.S.D.—Cours de Chirurgie et d'Exodontie, Faculté de Chirurgie dentaire, U. de M.

Dr Georges Hébert, M.D., L.M.C.C.—Professeur agrégé à l'Université de Montréal, Formulaire de l'Hôpital Notre-Dame de Montréal 1941—P. 296-97-98-99.

Dr H. Prinz, A.M., D.D.S., M.D., Sc.D., —Pharmacology and Dental Therapeutics, Chapitre des Sédatifs des Hypnotiques.

Accepted Dental Remedies—1935—American Dental Association—P. 202.

R.P. Rutché, C.S.S.P.—"Les tempéraments". 2561 Louis Veuillot, Montréal.



CHEZ NOUS ET AILLEURS

Nouveau conseil à la Société Dentaire de Montréal

Les élections du nouveau conseil de la Société Dentaire de Montréal pour l'année 1947-1948 ont donné les résultats suivants: Président: Raoul Lussier; Président-élu: Louis Lépine; Vice-président: Victorien Dubé; Trésorier: Gaston Lajoie; Secrétaire: Guy Langelier; Secrétaire-adjoint: Fernand Laplante; Bibliothécaire: Paul-E. Poitras; Conseillers pour l'est: Euclide Malo et Alphonse Plessis-Bélair; Conseillers pour l'ouest: Paul E. Baudet et Charles-Auguste Durand.

Ces élections furent faites sur nomination d'après la nouvelle constitution de la Société.

Congrès de l'Association Dentaire de l'Est de l'Ontario

Le congrès de l'Association Dentaire de l'Est de l'Ontario aura lieu les 22 et 23 septembre prochains, à Ottawa, au Château Laurier. Des conférenciers et des cliniciens de marque prendront part à cette réunion scientifique. Les dentistes du Québec sont cordialement invités à assister à ces journées dentaires, dont le secrétaire est le docteur Aimé Couture, 48 rue Rideau, Ottawa, Ont.

Fin d'activités à la Société Dentaire des Trois-Rivières et du district

La Société Dentaire des Trois-Rivières a terminé ses activités pour l'année courante, samedi, le 17 mai, par un banquet

à Louiseville. Cette réunion, sous la présidence conjointe des docteurs Roméo Beaudry, président de la Société et R. Trudel, gouverneur du Collège des Chirugiens-Dentistes de la Province de Québec, groupait tous les dentistes de la région et leurs épouses, M. le Chanoine Donat Baril, curé de Louiseville, Me Germain Caron, député de Maskinongé, et les conférenciers de l'année. Le docteur Conrad Godin avait organisé cette fête.

Prix à l'Université de Montréal

La collation des grades des finissants de la Faculté de Chirurgie Dentaire a eu lieu, vendredi, le 30 mai. Parmi les récipiendaires de prix spéciaux, nous notons: le docteur Robert Lacasse, qui a reçu le prix du Lieutenant-Gouverneur de la Province et celui de l'Association Dentaire Franco-Américaine; le docteur Julien Bussièrès, le prix "Eudore Dubeau"; le docteur Guy Coutu, un prix du docteur Slavidis; le docteur Richard Poirier, le prix "Joseph Nolin"; le docteur Rosaire Boissonnault, un prix du docteur Slavidis; le docteur Blaise Duguay, le prix du "Mémorial Théo. Coté"; le docteur Pierre Chalifoux, le prix du Collège des Chirugiens-Dentistes de la Province de Québec; le docteur Gerald Rousseau, le prix de la Banque d'Epargne; le docteur Guy Benoit, un prix du docteur Slavidis.

M. Ludovic Demers, élève de troisième année a obtenu le prix du docteur A. S. McGregor.

MOINS DE SUCRE, MAIS DE MEILLEURES DENTS

Le rationnement du sucre a de beaucoup amélioré l'état des dents des enfants de Toronto, dit le docteur Edmund-A. Grant, directeur de la section dentaire du service municipal de l'hygiène. "L'amélioration a été étonnante après 1939 alors que le sucre était en abondance", a-t-il dit. Et il a indiqué, comme confirmation, les statistiques se rapportant aux examens dentaires annuels dans les écoles élémentaires de la ville.



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.
397 est Boul. S.-Joseph, Montréal

PRECIEUSES REFLEXIONS*

par VIGER PLAMONDON, Québec

Depuis quelques années, la plupart des dentistes assistent en spectateurs aveugles à l'envahissement progressif de notre profession, par des gens de métiers, et, nous nous demandons souvent avec anxiété comment il se fait que tous les confrères, menacés quotidiennement dans leur vitalité, ne s'unissent pas pour endiguer cette marée montante qui risque, peu à peu de nous engloutir.

Les dentistes ne se préoccupent pas assez de leurs intérêts. Ils s'apercevront un peu tard, hélas, que leur insouciance est la cause immédiate de tout le mal, et, que, s'ils avaient écouté les appels réitérés, que leur adressaient des confrères bien avisés, ils auraient sauvé leur profession d'un état léthargique—ou mieux encore—de l'empiètement de leurs prérogatives.

Sachez bien, chers confrères de demain, que la majorité de nos confrères ne savent pas lire. Je dis bien, ne savent pas lire, car certains n'ont même pas leurs livres de cours. Une fois gradués et licenciés, ils vendent tout. Aussi, constatons-nous avec stupéfaction leur gros bagage de connaissance se résumer à deux choses: "*ARRACHER DES DENTS ET FAIRE DE L'ARGENT*". D'autres ne lisent jamais volumes et revues dentaires scientifiques. Ceux-là savent tout. Enfin, un troisième groupe représente ceux qui ne s'intéressent à rien de leur profession.

Nous croyons pouvoir expliquer ces trois groupes par les causes suivantes, qui en réalité ne font qu'une seule même chose: savoir:

- a) apathie
- b) indifférence
- c) nonchalance

* Causerie prononcée à l'occasion d'une réception aux diplômés 1947 de l'Université de Montréal par la Société Odontologique Canadienne, le mai 1947.

Ces mots, de par leur étymologie, signifient l'état d'une personne qui ne se soucie pas plus d'une chose que de son contraire. Cet état est né de la peur de l'effort intellectuel, maladie hélas trop répandue de nos jours. Ses symptômes sont faciles à connaître;

- a) conversation banale
- b) aucune étude après la graduation
- c) travaux sans but scientifique
- d) horreur de tout règlement ou loi
- e) vocation manquée.

Vous vous demandez, peut-être, pourquoi nous vous présentons un tableau aussi noir de notre profession? C'est pour que, vous qui demain serez nos confrères, vous soyez profondément imbus du vrai sens professionnel. Or, pour atteindre cet objectif, nous vous soumettons bien humblement un plan de réussite à part votre habileté personnelle, bien entendu, plan que nous diviserons en deux parties importantes: savoir:

A—Nécessité de faire partie d'une société dentaire locale, régionale, provinciale ou nationale.

B—Respect des devoirs professionnels envers—

- 1—vous-même
- 2—vos confrères
- 3—votre profession.

A—nécessité de faire partie d'une société dentaire

L'homme est un être qui a, par nature, le goût de l'association. Ce goût de nature, l'éducation et l'expérience l'ont développé actuellement chez vous. Or toute association comporte des droits et des libertés.

Le droit d'association est cette faculté qu'a tout homme d'unir ses forces à celles de ses semblables d'une façon constante, dans un but de réaliser une fin commune, licite et honnête. Ne trouve-t-on pas là toute la raison d'être d'appartenir à une société?

La liberté d'association est le corollaire de la liberté de travail; car serait-on libre de travailler, si on n'était pas libre d'unir ses efforts pour produire? Elle est aussi le corollaire du principe de propriété; en effet, serait-on propriétaire de ses facultés et de ses instruments de travail, si on ne pouvait les unir pour produire?

Que vous apportera cette association? C'est l'inspiration qui résulte du contact avec les confrères voisins; c'est la rencontre d'anciens amis; c'est l'occasion d'en faire de nouveaux (comme preuve de ce que j'avance, notre présence ici); c'est absorber en commun des idées universelles qui émanent continuellement de ces rencontres; C'est du choc des idées que naquit la lumière dit-on; c'est encore de profiter de l'expérience des autres qui font face aux mêmes difficultés; c'est, enfin, profiter des distractions diverses comme celle de ce soir.

Goethe nous dit que le talent se forme dans la solitude; le caractère dans la société. Lacordaire, de son côté, nous enseigne que le caractère est l'énergie sourde et constante de la volonté. Celui qui veut une chose en vient à bout, mais la chose la plus difficile au monde, . . . c'est de vouloir.

Que voulez-vous alors d'une société dentaire? . . . si ce n'est qu'elle soit un foyer intellectuel et scientifique . . . Or, comment y arriver? en travaillant *pour elle et avec elle.*

Pour elle.

En ne refusant pas de faire un communiqué ou une clinique pour intéresser les membres, les aider à se développer scientifiquement.

Il en est de la parole humaine comme de la poignée de grains que jette en terre le geste auguste du semeur. Ils ne lèvent pas tous et il faut semer beaucoup pour qu'il en germe quelques-uns. Semons donc et répandons autour de nous l'idée de travailler pour cette société. Si les efforts se font attendre, ne nous décourageons pas pour cela. L'effort utile et vraiment fécond n'est pas l'effort d'un jour, l'effort bruyant; mais l'effort ~~lent~~, l'effort patient et soutenu, c'est dire, un effort quotidien.

Avec elle.

En se faisant un scrupuleux devoir d'assister toujours nombreux à ses réunions afin d'en faire un tout homogène, qui ait du poids et dont on respectera les vues et les opinions.

Ne soyons pas des gens aux bras croisés et à la bouche close durant les séances. N'oublions pas qu'un membre en bonne et due forme a la liberté de parole. Aidons ses officiers en exposant nos idées, nos projets et même nos griefs. Défions-nous de l'homme qui trouve tout bien . . . de l'homme qui trouve tout mal . . . encore plus, de l'homme qui est indifférent à tout.

Dans un avenir rapproché, vous pourrez dire: "Qu'a fait notre société depuis notre adhésion, pour notre avancement?" Quelques-uns diront . . . rien ou presque rien; ce sont ceux qui n'y viennent pas. D'autres seront un peu plus généreux et admettront que quelques séances furent intéressantes . . . ce sont ceux qui ne viendront pas régulièrement . . . Enfin, et en toute sincérité, ceux qui sont assidus, avoueront qu'ils ont beaucoup appris. En effet, quel est celui d'entre nous qui, après les réunions, ne pourra dire comme Solon: "Je vieillis chaque jour en apprenant quelque chose de nouveau?"

Un de nos distingués confrères disait récemment que nous apprenons beaucoup plus de ces réunions intimes que des grands congrès. Rien de plus vrai, car vous savez comme nous que dans ces vastes organisations, toutes les séances ont lieu en même temps . . . On ne peut donc être partout à la fois; tandis qu'ici, vous avez le conférencier tout entier à vous. Par conséquent, *plus facile* à comprendre . . ., *plus facile* aussi d'avoir des explications aux questions posées . . ., *plus facile* enfin de saisir avantageusement les démonstrations ou cliniques. C'est ce qui faisait dire à Jules Simon, grand philosophe: "Ce n'est pas tout d'acquérir des idées, il importe surtout de les conserver."

Ce que vous donnera les causeries ou les cliniques, il faut l'ordonner et y mettre quelque ensemble. Imitons donc les abeilles qui voltigent ça et là, picorant les fleurs propres à faire le miel, qui ensuite disposent et repartisent tout le butin par rayons. Il en est de même des gens habiles, ils n'entassent pas les connaissances, mais les choisissent. Montaigne est explicite sur ce point lorsqu'il dit: "Savoir par coeur, n'est savoir. C'est tenir ce qu'on a donné en garde à sa mémoire."

B—Respect des devoirs professionnels envers:

- 1—vous-même
- 2—vos confrères
- 3—votre profession

Faisons de temps à autre, si vous le voulez bien, un petit examen de conscience. Ce sera salubre autant professionnellement que spirituellement. Et pour cause.

1—Envers vous-même.

Le dentiste doit bien s'imprégner l'esprit que son travail mérite une juste compensation, qui lui permette de vivre selon sa condition sociale; d'éduquer convenablement ses enfants tout en s'assurant par la pratique d'une économie mesurée et prévoyante, une protection contre les incertitudes de l'avenir.

Sa conduite devra être hors de tous reproches, et cela, à tous les points de vue. Veut-il avoir des patients? Il devra en mettre des satisfaits en circulation. La meilleure annonce que vous puissiez faire, c'est de toujours donner à votre patient ce qui lui convient le mieux pour son cas et pour ses moyens.

En d'autres termes: "Give to the world the best that you have, and the best of the world will come back to you."

2—Envers vos confrères.

A—C'est animé d'un profond désir de mener une vie reflétant la rectitude de ses dispositions qu'un dentiste doit épouser sa profession. Ainsi, au lieu de diminuer l'éclat du corps dont il fait partie, sa présence y ajoutera.

B—Toujours prêt à encourager et à seconder un confrère, le dentiste se gardera, sans raison grave, de nuire à la réputation d'un de ses confrères, soit en jetant du doute sur son habileté, par le récit de malheureux insuccès, soit en attaquant son caractère par la révélation de faiblesses accidentelles.

C—L'entente entre confrères doit toujours exister, à plus forte raison dans une petite ville ou village, voire même dans une région. Si l'accord n'existe pas, si la jalousie s'empare d'eux, ce sera la mort en affaires pour tous les deux. Après avoir visité et pris contact avec plusieurs centaines de confrères de la Province, l'expérience nous prouve que nous avons raison d'insister sur ce point.

N'oublions pas que le soleil reluit pour tout le monde. Si tel n'était pas le cas, quelle existence nos confrères du Medical Arts ou du Medico-Dental mèneraient-ils, alors qu'ils sont 100 au 125 dentistes dans un même édifice?

Une vie d'enfer . . . ! Nous sommes profondément convaincus que c'est plutôt un bienfait, car qui n'a pas besoin de son semblable?

Nous connaissons des endroits où la Société Odontologique Canadienne, par exemple, a déjà beaucoup contribué dans ce sens. Des confrères habitant la même localité depuis 18 ou 20 ans, ne s'étaient jamais parlés. Les réunions de la Société ont réussi à briser la glace et permettre maintenant la coopération entre eux.

3—Envers votre profession.

La profession jouit d'un prestige que lui ont acquis ses membres les plus distingués. Cet actif, tout dentiste doit tendre à l'accroître par sa conduite et son renom personnels. Le dentiste évitera donc de nuire à la bonne réputation de sa profession, en ne se laissant pas pénétrer par des idées mercantiles dans l'exercice de son art. Il tiendra pour méprisable la réclame tapageuse de forme commerciale qui rejaillit nécessairement sur tout le groupe professionnel et cause un fléchissement dans l'estime que peut lui porter le public.

Le dentiste doit aussi considérer sa profession non seulement comme un moyen de pourvoir à sa famille, . . . mais . . . il doit la regarder aussi comme un moyen de *perfectionner* sa culture personnelle et d'atteindre dans la société les sommets réservés à l'élite dont s'honore une nation.

Tels sont les vœux que nous formulons pour vous à l'aurore de cette vie nouvelle. Acceptez-les comme venant d'un confrère qui veut votre bien et votre avancement intellectuel, scientifique et vraiment professionnel.

FACULTE DE CHIRURGIE DENTAIRE

Cours Post-Scolaires, 1946-1947

Endroits	Chirurgie	Endodontie	Orthodontie	Prothèse
Québec.....	18	10	3	3
Ontario.....	3	—	1	3
Nouveau-Brunswick.....	2	—	—	—
Colombie canadienne.....	—	—	1	—
Amérique du Sud.....	1	—	—	1
Etats-Unis.....	—	—	1	—
TOTAL.....	24	10	6	7

Quarante-sept (47) élèves ont suivis ces cours.

REMISE D'UN DOCTORAT HONORIFIQUE AU DOCTEUR J. A. N. THIBERT



Photographie des hôtes de la table d'honneur au cours de la remise d'un doctorat "Honoris Causa" de l'Université de Montréal au docteur J. A. N. Thibert, de Fitchburg, Mass., durant le 9ième Congrès annuel de l'Association Dentaire Franco-Américaine, tenu à Boston, le 12 mars 1947.

De g. à d.: Louis-B. Amyot, Schenectady, N.Y., Ernest Charron, Montréal, J. A. Corriveau, Springfield, Mass., J. René Tassé, Worcester, Mass., J. A. Harpin, Worcester, Mass., Adolphe L'Archevêque, Montréal, J. A. N. Thibert, Fitchburg, Mass.

La Question du Fluor

Les méthodes employées jusqu'à ce jour pour montrer l'action prophylactique du fluor sur la carie dentaire sont d'une réalisation assez difficile pour le praticien. Les auteurs (dont les noms apparaissent ci-dessous), pour rendre la recherche accessible à tous, ont fait des essais en incorporant le fluorure de sodium, soit à des pâtes pour nettoyage dentaire, soit à des bains de bouche.

A) A un mélange pour nettoyage, formé d'eau oxygénée acide (pH 4) et de ponce, est incorporée une solution de fluorure de sodium à 4 pour cent. La pâte ainsi formée a été employée pour nettoyer les dents, 3 fois dans l'année dans un groupe de 47 filles de 6 à 14 ans, 2 fois dans l'année dans un autre groupe de 95 sujets de 6 à 14 ans. Chez tous, la pâte fluorée n'était appliquée que sur un côté de l'arcade. Les résultats observés sont en faveur de l'action prophylactique du fluor, les caries étant moins nombreuses du côté traité au fluor.

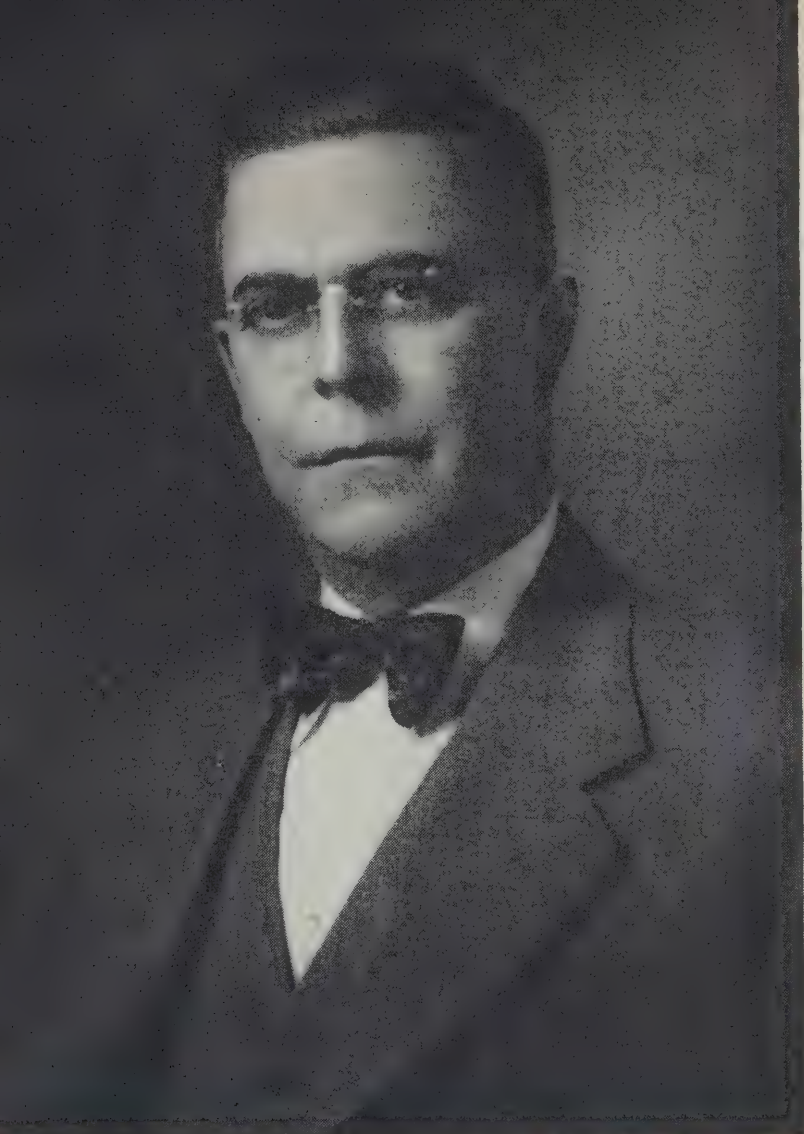
B) Par contre des bains de bouche acides (pH 4) au fluorure de sodium à 1 pour 1000, pratiqués 3 fois par semaine par des étudiants volontaires n'ont pas donné de résultat au bout d'un an. Les auteurs pensent que le goût désagréable de la solution a incité les patients à ne pas faire un usage régulier de la solution. ("Preliminary reports on the effect on dental caries of the use of sodium fluoride in a prophylactic cleaning mixture and a mouthwash," by B. G. Bibby, H. A. Zander et B. Labunsky, —Journal of Dental Research, vol. 25, No. 4, pp. 207-211.

G. Izard, La Revue de Stomatologie, tome 48, No 4, 1947.



• • • The Dental Profession of Canada joins with the whole world in extending its good wishes to H.R.H. the Princess Elizabeth and Lt. Philip Mountbatten, R.N., upon the announcement of their engagement, and would further express the hope that it might be possible for them to spend part of their honeymoon in this country.





J. KENNETH CARVER, D.D.S.
Montreal, Quebec.

President, Canadian Dental Association.

Past President, Montreal Dental Club,
Westmount Rotary Club, and Catholic Laymen's Retreat Association.

Vice-President, College of Dental Surgeons,
Province of Quebec.

Major in Canadian Dental Corps, 1942 to 1945.

Past Vice-President, St. Patrick's Society.

District Deputy, Knights of Columbus, 1935-1942.

Dental Surgeon to St. Mary's Hospital.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, AUGUST, 1947

NO. 8

ENDOCRINOLOGY AND DENTISTRY

by M. R. CHIPMAN, D.D.S., Spokane, Washington

SINCE the inception of modern dentistry we have been constantly aware of the effort, on the part of our dental educators and leaders, to raise our standards to a point, that merits the respect of the public, and the medical profession. We have travelled far along this road, and for proof we need only to scan the programs of dental meetings and note the increasing variety of subjects which are presented. Meetings are no longer limited to demonstrations of the fine points of technique required for the insertion of a restoration. The term "tooth carpenter" and "tooth puller" are long outdated, for the "tooth carpenter" today has at his command, not only the necessary skill for restoring lost dental function, but the ability to diagnose the causes of this lost function and accurately predict the future if remedial steps are not taken. The "tooth puller" is no longer the village smithy who relieved dental aches and pains by the strong arm method; for today the oral surgeon is a master of surgical technique, and the intricacies of anaesthesia.

During times of emergency, such as we have been experiencing, it has been extremely difficult to find time and extra energy for consideration of the many problems involved in the practice of dentistry; particularly if the problem is somewhat off the beaten track. It has been said that approximately 90% of the routine dental

practice is of a mechanical nature; however, this fact does not minimize the remaining 10% of the routine. Alloys, inlays, bridges, foils, extractions, dentures and orthodontia are exceedingly important in the restoration of function and mouth health; and the mechanical success of these restorations is dependent upon very exacting techniques. In view of the amount of time and effort involved in acquiring these techniques, it might be well to review slightly a few factors which occasionally contribute to failure in our work, despite perfect technique and procedure.

FACTORS CONTRIBUTING TO FAILURE

If we are planning to build a house, the architect, if he is competent, will be certain that a firm foundation is included in the plan. If we are planning our garden we are certain that the soil is prepared according to accepted standards; and, if we are hunting or fishing the acceptable preparation is to be sure to include our gun or fly rod, at least according to some. The concept of the practice of dentistry today is entirely different from the concept of 20 to 30 years ago; for the profession of dentistry has not been static, and we as dentists should take careful note of that fact in surveying the field in which we are working, to ascertain if we are making full use of the potential knowledge at our disposal.

Since the early days of dentistry many notable men have contributed to our progress and almost without excep-

*Presented before Vancouver and District Dental Society.

tion they have dwelt at length on some phase of prevention. The works of Fauchard, Black, Gottlieb, Oppenheim, Schwartz, Schour, Johnson, Bunting, and many others would be a chronicle of dentistry.

The dentist of today is looked upon as a specialist in oral diseases, not just as a mechanic replacing lost teeth or portions of teeth. This is in contrast to the position occupied by dentistry in the past, but unfortunately there is a considerable tendency to again make the dentist a mere mechanic and a middleman between the patient, the commercial laboratory and the supply houses, not to mention governmental bureaus. This fact needs no elaboration, for it is only too apparent. The rapid advance made in both medicine and dentistry have emphasized more and more that the various structures which compose the oral cavity are part and parcel of the organ constituting the portal of entry for food and air. The structures of the oral cavity prepare the food for, and initiate the process of digestion, so that disease or disorder of the mouth may produce evidence of trouble in distant parts of the body. The reverse also holds, that disorganization in other parts of the body may exhibit manifestations within the oral cavity, before it is apparent anywhere else. Some of these discrepancies, such as gingivitis, periodontosis, caries, etc., are evident upon visual examination, and others are readily discernible upon examining a roentgenographic survey of the mouth. Root resorption, osteoporosis, missing teeth, pointed and small roots, pulp stones, cysts, etc., are all manifestations in which we should be interested. To be of the greatest possible service to our patients we must equip ourselves to recognize these conditions; for the best dentistry of which we are capable will often be a total loss if constructed on an unsound foundation.

ENDOCRINE DISTURBANCES

The nutrition, growth, and repair of all tissues of the body, including those

of the oral cavity, are dependent upon normal metabolic functions, and they in turn depend upon normal correlated activities of the endocrine glands. Since the eruption, and later the maintenance of the teeth, and the integrity of the surrounding tissues are largely under the control of the endocrine glands, it is of importance to be ever mindful of the particular changes in the mouth, which may result from certain endocrinopathies.

In orthodontia we have been interested in these oral and roentgenographic manifestations for many years. Dr. Marshall of the University of California was responsible for many of the original investigations, and of late years Dr. Hermann Becks of the Hooper Foundation at the University of California has carried the investigation and research to a point where definite conclusions may be drawn from roentgenograms which are properly processed. Due to the fact that our more common difficulties arise from hypothyroidism, I will attempt to limit this discussion principally to a very brief review of hypothyroidism and its relation to the oral cavity. Disturbances of the pituitary, the gonads, parathyroids, and pancreas also exhibit definite oral manifestations, but at this time any discussion of these will only be coincidental.

In foetal life and early childhood the differentiation and the maturing of tissues is controlled by the thyroid, while in later life the thyroid controls the rate of function of tissue, by the regulation of the rate of oxygen consumption and energy production in each body cell. Dental problems are greatly influenced by this function.

Since the size, shape, and the integrity of all teeth are determined before they erupt, these factors can be influenced by endocrine disturbances, only if they are operative at a time when the teeth are developing and are still submerged. For example, a calcium deficiency occurring during intra-uterine life, or shortly thereafter, will affect the calcification of the deciduous teeth,

while the permanent teeth will show the effect of such a change in metabolism if it occurs before the age of five. Changes in primary structure after this age will only be reflected in the alveolar tissues.

In Wolff's text, *Endocrinology in Modern Practice*, will be found an excellent outline of disease of the oral cavity, and in the main they are substantiated by the findings of Marshall and Becks.

Under hypothyroidism Wolff lists the following possible dental effects:

1. Delay in dental development.
2. Large central incisors.
3. Small lateral incisors.
4. Ridging of the teeth.
5. Congenital malformation of the mouth and teeth.
6. Malocclusion.
7. Chronic infections of the teeth, tonsils, sinuses.
8. Abnormally soft dentine and enamel.
9. Root resorptions.
10. Thickening of lips and tongue.
11. Periodontosis.
12. Gingivitis.
13. Tendency to canker sores.
14. Dry mouth.

To these might be added the following:

1. Osteoporosis of the alveolar process.
2. Short and pointed roots with large crowns.
3. Multiple missing teeth.
4. Caries quite active.
5. Loosening of teeth without gingival irritation. This is seen so often that as clinical evidence it is valuable.
6. Pulp stones.
7. Early loss of deciduous teeth.
8. Dirty mouth.

It does not follow that every patient must be afflicted with all the above to be classed as a suspected hypothyroid, but it does remind us that we, as dentists, by being able to recognize the symptoms in their varying degrees, will not only be of great assistance to the

physician, but in many cases will render our patients an invaluable service. We will save ourselves many headaches in trying to explain to the patient, and our ego, why an extensive case of reconstruction has not stood the test.

DELAYED ERUPTION OF TEETH

It is not uncommon to find delayed eruption of deciduous and permanent teeth. Considerable research has been done on the possible correlation of skeletal bone age and tooth eruption, and investigations by Todd, Bean, Cattell, and Becks, have all emphasized the point that skeletal bone age and eruption of teeth go hand in hand. In one investigation 91 patients with delayed tooth eruption, 43.59 per cent were classed as hypothyroids, and the next highest percentage of 15.39 per cent was attributed to congenital syphilis. Too often delayed eruption is shrugged off with the remark that the patient is naturally slow; however, delayed eruption of teeth is often an important criteria as an indication of the physical status of the patient. It is not uncommon to examine children at 13 to 15 years of age with deciduous molars still retained. Roentgenographic examination often reveals that little or no resorption of deciduous roots has taken place, even though the bicuspid has completed their development. Werner in his book on "Endocrinology, Clinical Application and Treatment" verifies this finding when he says, "Hypothyroidism occurring prenatally with resultant cretinism, and in the growth periods of infancy, childhood, and adolescence, results in marked retardation of development and growth of the teeth with late eruption and malposition. Late eruption of the deciduous teeth is primarily due to thyroid deficiency in infancy." In such cases it is well to investigate the possible causes, and the following factors will be found to be most common:

1. Rickets.
2. Metabolic disorders in early life; e.g. Measles, whooping cough, fevers, etc., which have occurred

in a long series and as a consequence will affect the growth processes.

3. Hypothyroidism and hypopituitarism. Hypothyroidism is one of the outstanding factors in this regard. Many times, following the extraction of the deciduous molars and the retaining of the space for the bicuspid, it will be from one to three years before the bicuspid put in an appearance. This is rather confounding when we nonchalantly extract deciduous teeth without retaining the space, or attempt to determine the possible causes of the delayed eruption of the succeeding teeth. It is well to inquire first if the patient has had rickets, and then if there has been any thyroid trouble in the family. If a negative answer is given, the rational course then is to delay the deciduous extractions until you can investigate further. The medical profession has at its command the means by which hypothyroidism can be readily ascertained, although pituitary dyscrasias are rather difficult to determine at an early age.

PITUITARY GLAND

The pituitary is called the Master Gland, and is also described as the conductor of the endocrine symphony. As an example, upon the injection of the antgrowth hormone, small teeth may be produced and vice versa. With the use of these hormones genetic tendencies can be arbitrarily controlled. Experiments have shown that upon the removal of the pituitary gland, the eruption of the teeth stops immediately. Little is known as to the exact action of the pituitary in this regard, but the result is quite positive and explains the delay in eruption in cases of hypopituitarism. Some cases which we formerly thought were simple hypothyroids, now prove to be hypopituitary with a consequent reflection on the thyroid with a resultant low B.M.R. Burket in his book on "Oral Medicine" substantiates

these findings and says, "Teeth may appear later than normal, and fail to erupt completely. The crowns are usually normal, but frequently show incomplete formation of the roots with wide apical foramen."

HYPERPARATHYROIDISM

Hyperparathyroidism should be kept in mind when roentgenograms exhibit unusual areas of decalcification, or cysts which are unrelated to the apices of the teeth. Early loss of teeth is also quite common, due primarily to a demineralization of the alveolar process. Burket recognizes the importance of this fact when he states, "Following the loss of all the teeth the maxillary and mandibular bones furnish an unsatisfactory base for artificial dentures because of its poor quality." It must naturally follow that the replacing of lost teeth by bridgework and partial dentures and the treatment of periodontosis would be equally unsuccessful. We, as dentists, should not rule out a systemic background when we find bone cysts, multiple epuli, or any oral lesion of an unusual nature.

PULP STONES

Pulp stones have been one of the plagues of dentistry, and little if anything is ever done to determine the cause in our individual patients. It is well, however, in view of our present knowledge to take cognizance of some of the factors contributing to their formation. No doubt everyone in this room has at some time witnessed the loss of teeth in which there have been no caries, no restorations, nor any reason for undue trauma. Upon extraction and breaking open of the tooth you have found a putrescent pulp and one or more pulp stones which have caused a pressure or strangulation of the pulp. Far too many teeth have been lost in this manner, and these lost teeth have been replaced by too many bridges anchored to adjoining teeth already afflicted with pulp stones. It has been found that 60 per cent of these patients having multiple pulp stones are hypo-

thyroids. This is a considerable portion and definitely warrants consideration. Hypopituitarism and hyperparathyroidism sometimes produce pulp stones but as a rule are not as severe as with hypothyroidism. There are a number of other factors which influence the formation of pulp stones which may be of interest at this time.

1. Chronic irritation of some form, such as gritting the teeth.
2. Deep metallic restorations.
3. Magnesium deficient diets.
4. Large doses of Vitamin D. As dentists, we should not give any of the concentrated sterols, such as ergosterol, to our patients. We are in no position to determine the need, nor the dosages, but on the contrary, we are in a position to do an infinite amount of harm by following this practice. However, this is rather a common procedure and can be laid to our custom of attaining our information from some detail man who has memorized a sales talk. I cannot help but remark on this rather reprehensible fact. True, the detail man has his place in the scheme of things; but I do not feel that his place entitles him to the exclusive right to disseminate knowledge, and that is the attitude assumed by many. We have at our disposal many sources of knowledge and it is our duty to avail ourselves of the scientific facts from these legitimate sources. Constant repetition of ads, sales talks, and propaganda have conditioned us for the reception of far too many false panaceas and nostrums. You need only to read the list of accepted and rejected items published by the A.D.A. to be fully aware of the facts. This is the province of a competent physician, and his advice should be accepted in this regard. It has been demonstrated that pulp stones may be formed in *deciduous* teeth by the administration of too large dosages of concentrated sterols.

ROOT RESORPTION

Root resorptions have plagued the orthodontists for many years. The original investigations by Ketcham were

carried out with the complete assurance that some particular type of appliances was the sole cause. This thought however, was soon found to be erroneous, for further investigations disclosed that in the majority of instances biologic discrepancies and nutritional deficiencies were the principal background. One investigation of 72 patients by Becks, prior to orthodontic examination, revealed that 32 per cent of those examined showed signs of root resorption prior to treatment. This percentage coincides with reports by Marinus of examination of 5,000 children in whom he found 1/3 showing signs of thyroid deficiency. This, indeed, is an important finding, for it not only affects the orthodontist, but has an intimate bearing on the results obtained by the general practitioner. Full mouth reconstructions, bridges, both fixed and removable, and periodontal patients would be poor risks if their mouths exhibited signs of root resorptions. This is true not only because of the root resorptions themselves, but also because of the tissue deficiencies that accompany the metabolic disorder which has brought about the root resorptions. We are faced not only with the resorbed roots, which are apt to resorb even more, particularly under stress, but in the hypothyroid there is the presence of osteoporosis and an unstable foundation upon which to build.

It is not uncommon to hear complaints of teeth used as bridge abutments, being loose. What explanation do we make of edentulous mouths where bone resorption is a continuing process? It cannot be periodontosis, for that presumably was dissipated with the extraction of the teeth, so we are told, but what, may we ask, caused the periodontosis? Was it caused by a dietary deficiency, was it some physiological upset such as anemia, or was there a metabolic imbalance such as hypothyroidism? There are some who are bold enough to scoff at the term "Dental Medicine," but I believe there is a very definite need in our every day practice for its use. The phrase "Den-

tal Medicine" has been tossed about in an ambiguous manner for many years. It has been used to cover a multitude of omissions and commissions with scant recognition of the intimate connection existing between dental health and bodily health. Scores of papers have been presented extolling the virtues of this or that method of restoring lost function, and any failures resulting from using the particular method being advocated, were excused by the pontifical declaration of "faulty systemic background." I am firmly convinced that the dentist of the future will be as well equipped as the physician in nutrition if not in endocrinology, due to the intimate connection of the resulting deficiencies with the tissues of the oral cavity. Research work at the University of Michigan by Bunting and Jay, at the University of California by Becks and his staff, and in San Diego by Michael Walsh prove beyond any reasonable doubt that we should interest ourselves in the medical end of dentistry. Many other men and institutions are devoting untold time to the consideration of these important problems.

It is not necessary that we be physicians in order to recognize evidence of these dyscrasias, but I feel it is necessary that once the conditions are recognized we do not neglect our duty of advising the patient of our findings. In this regard I do not think we should hesitate in recommending the patient

to a competent physician or diagnostician. Too often we are faced with a medical examination which is sketchy to say the least. Too often we are told that nothing is wrong with the patient, when we know that all is not well. Too often do we also find our patients in the hands of charlatans who are only too happy to dispense "Endocrinology" at so much a bottle.

Root resorptions, periodontal lesions, chronic gingival irritations, rampant caries, and allied dyscrasias should be scrutinized carefully, and unless the causative factors are local, a thorough medical examination should be considered. Closer cooperation between the dentist and the physician, and a better understanding of the obscure factors affecting the oral cavity will help us in solving many of our mechanical worries. The degrees of D.D.S. and D.M.D. imply that we have knowledge other than that entailed in restoring mechanically lost portions of the dental apparatus. Let us live up to that concept.

The slides I am going to present are mostly of young patients who were under orthodontic consideration, and for the most part do not present the gross manifestations found in older patients. However, the manifestations are sufficiently evident to at least arouse suspicion, and as Michael Walsh says, "Do not assume, but obtain facts."

1251 PAULSEN MEDICAL BUILDING

Research has clearly shown, in the laboratory and in the field, that light intensity prior to harvest has an important influence on the vitamin C content of certain fruits and vegetables. It has been demonstrated experimentally that the concentration of this vitamin in turnip greens increases 8-fold in a week as the light intensity is increased from 200 to 5,000 foot-candles. We cannot expect to control climate, but we can take climate into account in deciding where certain crops should be grown. We may modify certain greenhouse practices where nutritive value is markedly concerned.

—Leonard A. Maynard, Director, School of Nutrition, Cornell University—in Science.

"Those who do great things together desire to do more of them."—Toman.

SAVE THAT PULP

by ISADORE WOLCH, D.D.S., Winnipeg, Manitoba

IN recent years the term Endodontia has been introduced in Dentistry. Its meaning is obvious from its origin, namely, to keep teeth in, as opposed to Exodontia which is its antonym. It can be safely prophesied that just as long as Communism will be opposed to Capitalism so will the Endodontist and the Exodontist vie with each other as to whether doubtful teeth should be retained or extracted.

There has been a misconception that Endodontia concerns itself only with root canal therapy. This is definitely incorrect since the Endodontist as well as every general practitioner realizes that the ideal to strive for is a vital pulp in a sound tooth. (Just as the physician's aim is a sound mind in a sound body).

One of the most common and distressing occurrences to the average dentist is exposure of the pulp during cavity preparation. Prevention of pulp exposure is definitely much more desirable than treatment and lack of publicity for recent investigations has meant the needless loss of many pulps and teeth. G. V. Black¹ taught that every bit of decay must be removed regardless if the pulp was exposed or not. His rule that every exposed pulp was an infected pulp has been universally taught and accepted until quite recently. In 1943 Dorfman, Stephan and Muntz² published the results of their research which has exposed the fallacy of Black's theory. Their work which has since been proven by other investigators, has demonstrated that superficial layers of caries were *always* infected, intermediate layers were *sometimes* infected but deep layers were almost always sterile. Clinical proof for this monumental research has been available for years since it has been common practice to place zinc-oxide and eugenol

over the bottom layer of carious dentine or even over a pulp exposure. A surprisingly large percentage of teeth treated in this manner remained vital.

In treating vital teeth with deep caries it is well to proceed cautiously. When the soft superficial layers have been removed the deepest layer immediately over the pulp should not be disturbed mechanically. An effort should be made to sterilize this layer without irritating the pulp. Caustic and dehydrating drugs such as phenol, silver nitrate or alcohol should be avoided as pulp devitalization can follow their use in close proximity to the pulp. Grossman³ has found Beechwood creosote to be one of the most effective and least irritating of all the sterilizing agents used in teeth. He recommends after swabbing with creosote a *sub-base* of the following cement:

Powder

Zinc oxide (arsenic free)	70.0
Staybelite Resin	20.0
Zinc Stearate	8.5
Benzoic acid	1.5

Liquid

Beechwood Creosote

This cement has to be mixed stiff and placed promptly as it hardens quickly. A base of oxyphosphate cement is placed over it and then the permanent restoration. (Fig. 1)

EXPOSED PULP

If the pulp is actually exposed, pulp capping may be attempted with the above cement, only equal parts of oil of cloves and eugenol are substituted for the creosote. This is teased over the pulp without pressure and as soon as it is set the cavity is filled with oxyphosphate cement. (Fig. II) The heart-breaking trick of attempting to

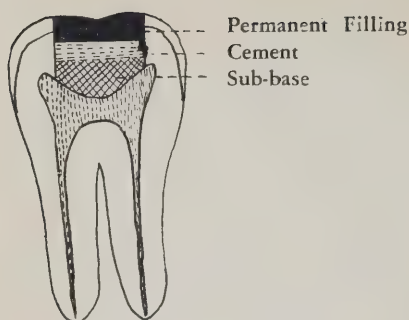


Fig. 1

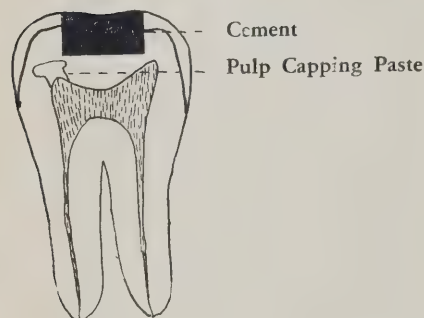


Fig. 2

place a metal cap over a pulp exposure is unnecessary and not worth the aggravation of placing it just where you want it. Following a period of "masterful inactivity" (like the master obstetrician), a permanent filling can be safely placed if the pulp remains vital and quiescent for about two months. Pulp-capping has been found to be highly successful in younger patients particularly.

PULPOTOMY

Pulpotomy, amputation of the coronal portion of the pulp, is a very useful technique in children's and young adults teeth *only*. It is indicated where pulp capping has failed or where there is such a large exposure of the pulp that pulp-capping is contra-indicated. Also where the apices are wide open making it very difficult to obtain a hermetic seal pulpotomy should be attempted, provided there is still some vitality left in the pulp.

The technique is simple but should

be done with strict adherence to the rules of asepsis. Following the injection of a local anaesthetic the rubber dam is applied and the tooth swabbed with an antiseptic. Carious dentine is carefully removed with excavators or burs revolving at slow speed to avoid pulpal injury. The cavity is then swabbed with creosote just before opening into the pulp. The entire roof of the pulp chamber is removed and then the coronal portion of the pulp is excavated with a curette or large spoon. Haemorrhage at this stage is controlled by sterile cotton and epinephrine. In anterior teeth the coronal portion of the pulp is best removed with burs but care should be taken not to enter the canals. All blood should be washed away with hydrogen peroxide U.S.P. to prevent discolouration. The pulp chamber is wiped dry and a pledget of cotton soaked in eugenol sealed in for 24 hours to soothe the inflamed pulp. When the tooth is comfortable, a pulpotomy paste is placed. Zinc oxide and eugenol, to which, part of paraformaldehyde has been added is a very successful formula recommended by Waas⁴ of the Guggenheim clinic. Grossman⁵ suggests the following:-

Powder

Zinc-oxide	60
Staybelite resin	15
Dentine powder (auto-claved) ..	24
Benzöic acid	1

Liquid

Eugenol	50
Oil of cloves	50

The above pastes are gently flown in over the exposed pulp and covered with oxyphosphate of zinc. The vitality of the tooth should be checked and after 2 months if no appreciable difference is noted a permanent filling can be safely placed. (Fig. III)

The greatest chance of retaining vital pulps is not to injure them. It is no fault of a dentist when the pulp is endangered from decay or trauma. However, our operative procedures

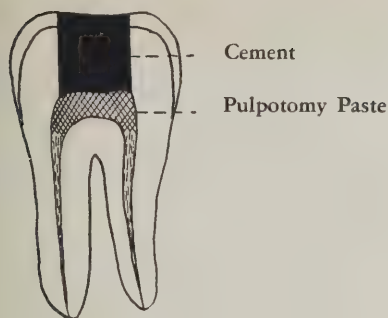


Fig. 3

can definitely injure pulps. Bronner⁶ has shown that grinding enamel for 45 seconds raises the tooth's temperature 10°. Grinding dentine for the same time raises it 15°. Rest periods while grinding should be frequent and a stream or spray of warm water directed at the tooth, has proven to be of inestimable value during cavity preparation. This also prevents dust being inhaled by both dentist and patient which is a valuable precaution. Watchler⁷ reported a rise of 27° can be transmitted to the pulp in 5 seconds through an inlay, but 1/16th inch of cement allows only 4° to be transmitted. Therefore all cavities should be

lined with both varnish and cement to prevent chemical and thermal irritation.

CONCLUSIONS

In conclusion it must be emphasized that gentle handling is the secret of pulp conservation. Operative procedures should be performed cautiously and on a moist tooth. The bottom layer of carious dentine can be left if it is not soft and if it is sterilized and protected with a sub-base. Pulp capping and pulpotomy can often save teeth without resorting to pulpectomy.

BIBLIOGRAPHY

1. Black, G. V.—Special Dental Pathology.
2. Dorfman, A., Stephan, R. M. and Muntz, J. A.—*Jour. Amer. Dent. Assn.* 30; 1901, 1943.
3. Grossman, L. I.—*Root Canal Therapy*, 2nd. ed. Philadelphia, Lea and Febiger, P. 228, 1946.
4. Waas, C. J.—*Dent. Outlook*, 26; 203, 1939.
5. Grossman, L. I.—*Root Canal Therapy*, 2nd. ed. Philadelphia, Lea and Febiger, P. 128, 1946.
6. Bronner, F. J.—*Dent. Cosmos*, 74; 535, 1932.
7. Watchler, W. R.—*Jour. Can. Dent. Assn.* 8,378, 1942.

ACKNOWLEDGMENT

The contents of this paper are based on post-graduate study in Endodontia at the Thomas W. Evans Museum & School of Dentistry of the University of Pennsylvania, under Dr. L. I. Grossman.

GENERAL ANAESTHESIA IN PEDODONTIA

by I. B. HYAMS, D.D.S., Montreal, Quebec

IN handling mentally ill children for dental troubles, the writer has had frequent recourse to using general anaesthesia. The child was anaesthetized and his mouth completed in one session, both restorations and extractions. Several cases required the placing of six fillings and two extractions. In this way, the child's dental suffering was relieved and his salvable teeth saved.

More recently, cases of recalcitrant children were handled in this way. Instead of procrastinating and temporizing and finally succeeding in placing a poor restoration, the child was anaesthetized and the work com-

pleted properly, without further ado.

X-rays are obtained, intra-oral if possible, extra-oral lateral plates if intra-oral cannot be obtained. The routine of procedure involves completing the fillings on one side, then on the other, and the removal of the necessary teeth on that side followed by the removal of the necessary teeth on the other side. Cement base and silver amalgam fillings are used.

With a capable anaesthetist using nitrous oxide and oxygen, the mouth is propped and the throat draped with a gauze pack. The tooth being worked on is kept dry by the dental assistant using the chip blower. The prepara-

tions on one side are completed, the dentine sterilized, the bases placed and the fillings inserted. All particles of amalgam must be carefully removed to prevent their falling into the extraction sockets. Oral secretions are promptly removed with the surgical suction. After being brought out of the anaesthetic, the patient is retired to the recovery room where he rests, then he is dismissed.

APPARENT OBJECTIONS

The apparent objections to the use of general anaesthesia in these cases is naturally the risk involved in administering the anaesthetic and the possible post-anaesthetic complications. I realize the best place to perform these operations would be in a hospital but in the present stage of enlightenment access to the operating rooms for this purpose is almost impossible, and certainly out of the reach of most general practitioners.

A further objection would be the possibility of rendering the young patients distasteful to future dentistry that will have to be performed. This, I think, is not necessarily true. Given a capable anaesthetist, the course of procedure flows smoothly. Many child patients are terror-stricken from manipulations at the hands of dentists in futile attempts to treat carious

deciduous teeth properly. Their restlessness and un-cooperativeness, no matter what the cause, makes doing good work practically impossible, or economically impossible from both the parents' and the dentist's point of view.

CONCLUSIONS

What we must decide is whether the dental organs in these young tots are to be taken seriously or whether we are to dismiss the parent saying we can do nothing for the child. Many men are downright dishonest or flagrantly ignorant in handling this problem. The deciduous teeth are held in contempt, and the child's dental troubles are dismissed with the dictum that the teeth will come out and there the problem will end. Surely enough has been written now to negate this thought. Any dentist worth his salt will have but one answer to the problem. The child's dental ills must be given the attention they warrant. We are dentists and the problem is ours. Where else is the patient to turn? This method may be fruitfully used to solve the otherwise exasperating problem of trying to manage frightened tots who can hardly be expected to do what many adults cannot do.

5043 PARK AVENUE.

In this new epoch of the world's progress, I am urging that our hearts be securely knit together in planning for perpetual progress that others yet unborn shall enjoy even greater privileges and greater benefits.—Mary F. Joiner.

The future of our civilization depends upon the widening spread and the deepening hold of the scientific habit of mind.—John Dewey.

"We have too many opinions and not enough convictions."—Clarence S. Roddy.

"You can't remove mountains by merely kicking up a dust".

"Man is just what he is when he has liberty to do what he wants".

Northern Ontario Dental Association

President: Dr. Percy Hill

Secretary: Dr. Norman Downer

Eastern Ontario Dental Association

President: Dr. L. R. Braden

Secretary: Dr. Aimé Couture

Montreal Dental Club Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration covering Immediate Dentures, Endodontia, Children's Dentistry, Local Anaesthesia, Porcelain, Acrylics, Amalgam, Office Management, Crown and Bridge and Operative Dentistry. Two progressive clinics of three sessions each on Periodontia and Full Denture Prosthesis will also be given as well as table clinics and essays and papers on diversified subjects of special interest to the profession.

Amongst clinicians appearing will be Dr. H. D. Grubb, Cleveland, Ohio; Dr. F. W. Stevens, Philadelphia, Pa.; Dr. I. H. Ante, Toronto, Ont.; Dr. H. Spiro, Chicago, Ill.; and Dr. R. B. Munn, Milwaukee, Wis. A further list of clinicians will appear in a later issue of the Journal.

Hotel reservations should be made now direct to the hotel and attendance at the Fall Clinic should not be emphasized in making them.

Should other information be required or a preliminary program when ready
address direct to

DR. M. L. DONIGAN,
1414 Drummond St., Montreal, Quebec

Université de Montréal Graduate Course in Orthodontics

The next graduate course in Orthodontics will begin on September 15 1947. Lectures and clinics will be given in the English and French languages. Applications for this course should be sent in as soon as possible to Dr. Ernest Charron, Dean, Faculty of Dental Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal (26), Qué. Canada.

Dental Intern Wanted

The Dental Service of the Toronto General Hospital has recently become a teaching department of the Faculty of Dentistry, University of Toronto. Thus an internship in Dentistry is now available.

A course of training in all departments of the hospital has been organized to provide the graduate with a broad training in the associated sciences.

The internship is for one year and applicants may apply by writing to:

DR. DOUGLAS TANNER, Director of Dental Services, Toronto General Hospital, Toronto, Ontario.

ANNOUNCEMENTS

One-Week Course in Periodontia at Toronto

The Faculty of Dentistry, University of Toronto announce a one-week post-graduate course in periodontia to be held September 15 to September 20, 1947.

This course will combine theoretical as well as practical aspects of the subject, such as diagnosis, case management, scaling, packing, oxygen therapy and the use of the newer drugs, including penicillin. Nutrition, as it is related to periodontal disease, will be discussed; occlusal equilibrium, gingivectomy and postoperative treatment will also be demonstrated.

As the attendance will be limited, those intending to enrol in this class should make an early application. A cheque for \$75.00 made payable to the Chief Accountant, University of Toronto, should accompany the application.

Address all inquiries to the Dean, Faculty of Dentistry, University of Toronto, 230 College St., Toronto 2 B, Ontario, Canada.

Seventh Annual Prize Essay Competition of the Chicago Dental Society

To stimulate research in all phases of the science of dentistry, the Chicago Dental Society is sponsoring its Seventh Annual Prize Essay Competition. The author of the winning essay will receive a cash award of \$500.00 and will be invited to present it at the expense of the Society at the 83rd Midwinter Meeting, to be held in Chicago February 9-12, 1948.

Any American Dental Association member or other person of scientific attainment affiliated with a recognized institution in the dental field in any part of the world shall be eligible to apply for permission to enter the competition, provided written application is filed before October 1, 1947. The Chicago Dental Society through its duly appointed committee shall pass upon the qualifications of applicants. Application forms and contest rules may be secured upon written request to the Chicago Dental Society, 30 North Michigan Avenue, Chicago 2, Illinois.

Refresher Courses at Illinois

The University of Illinois College of Dentistry will offer seven refresher courses this fall starting September 8.

Dr. Isaac Schour, associate dean in charge of postgraduate studies, has announced that courses will be offered in "Complete Dentures," "Partial Dentures," "Oral Pathology, Diagnosis, and Surgery," "Root Canal Surgery and Periodontia," "Operative Dentistry," "Dentistry for Children," and "Crown and Bridge."

The courses will be offered in sequence, extending for a total of 12 weeks until November 28. Dentists may enroll in single courses, or may register for the complete program of 12 weeks.

"If you have a half hour to kill please do not kill it with someone who hasn't".

"I have never bought a thing on easy terms that did not turn out hard to pay."

The Forum

INDICATIONS FOR THE REMOVAL OF IMPACTED THIRD MOLARS AT AN EARLY AGE

by GLENN R. HILLIN, D.D.S., Dallas, Texas.

Condensed from Am. Jour. of Ortho. and Oral Surg., May, 1947

The main consideration in the removal of impacted third molars at an early age is as an aid in the prevention of malocclusion and, where the prognosis indicates, the possibility of a relapse. The term "relapse" is used as Hellman uses it when he calls our attention to disturbances occurring in cases which have been successfully treated; therefore, relapse means a return to a former bad state. A distinction is drawn between relapse and failure.

We understand that moving teeth from one point to another is a simple task. But maintenance of the teeth and alveolar arches in the position established for them by active orthodontic treatment constitutes a greater problem.

Many causes have been advanced for the relapse of completed cases: malnutrition, acute infectious diseases, glandular disturbances, impacted third molars, and many systemic disease conditions, which may retard or increase the usual growth pattern. Some of these factors may be controlled while obviously others cannot.

Impacted third molars are due to insufficient backward growth of the jaws and may we also remind you that the ramus of the mandible develops and grows by the deposition of bone on the posterior border and resorption on the anterior surface. The diagnosis to remove impacted third molars is governed a great deal more by maturation of the individual

than chronologic age. As we all know, we frequently see a wide variation between the two, sixteen-year dentition and twelve-year jaws, and vice versa. Many cases present themselves with enormous teeth out of all reasonable proportion to the size of the jaws.

Research has shown that a great percentage of all second molars show evidence of resorption and repair. The main question to be decided is when is the best time to remove impacted third molars. They should be removed at an early age before there is complete formation of the roots and the surrounding structures have become more calcified. It is easier on the patient at this stage than at any later date when the tooth is more deeply encased in hard bone; it also eliminates a long series of pathologic conditions which are likely to develop.

In the specific listing of indications for the early removal of impacted third molars, it seems that no improvement may be made on the summarization of C. Bowdler Henry, Hon. Dental Surgeon, Royal Dental Hospital, London, England, in regard to indications for enucleation of the mandibular third molar, which he gives as follows:

(a) In early cases, before calcification of the third molar when the crown of the second molar is crowded against the root of the first molar and when the third molar crypt is sharply tilted behind and above the second molar and crowded upon it.

(b) At a later stage, after calcification of the cusps, when the orientation of the crown of the third molar is seen to be abnormal, in either a mesio-oblique direction or in a lingual direction, especially when there is further evidence also of molar crowding on the second molar, which is being pressed under the posterior convexity of the first molar.

(c) When the molar teeth, and especially the third molar, are abnormally large.

(d) When the mandibular third molar is of normal size but the maxillary third molar is abnormally small or congenitally absent.

(e) When the third molar is grossly deflected by a supernumerary tooth.

(f) When through the early loss of the deciduous molars, the first and second molars having tilted forward, it is proposed to push them backward in order to allow the first and second premolars to erupt into their proper places.

THE LIMITATIONS OF ORTHODONTIC TREATMENT

by HAYS N. NANCE, D.D.S., Pasadena, Calif.

Summary and Conclusion of paper in *Am. Jour. of Ortho. and Oral Surg.* May, 1947

1. If a stable, permanent result is to be attained in orthodontic treatment, mandibular teeth must be positioned properly in relation to basal bone.

2. Arch length may be permanently increased only to a limited extent. The labial movement of mandibular anterior teeth is indicated only when those teeth have been tipped to an abnormal lingual-axial inclination by a deep overbite or by some other mechanical factor. A limited amount of permanent increase may be obtained through buccal expansion, in some cases, but not in all. Distal movement of mandibular molars is called for only in cases of bona fide mesial drift, occasioned by the premature loss of second deciduous molars or the loss or congenital absence of second premolars.

These limitations upon permanently increasing arch length oblige the orthodontist to remove tooth structure in the majority of cases presenting with rotations, crowding, or with anterior teeth tipped forward of the bony base.

3. While extraction, when indicated,

supplemented with judicious treatment, carries the promise of stable results, excessive lingual tipping of mandibular incisors is to be deplored almost as much as excessive labial tipping of these teeth.

4. The proper positioning of mandibular anterior teeth, neither too far labially nor too far lingually, demands careful case analysis. This involves a correct decision as to which teeth to extract, and involves the skilful fitting of anterior segment anchorage against anchorage in the posterior segments.

5. Orthodontists have been too prone to disregard the treatment itself as a possible explanation of relapse. Far more cases have relapsed due to failure on the orthodontist's part to assess properly the potentialities of the case in treatment, than have relapsed due to pressure from third molars or habits indulged in by the patient.

6. Measurements substantiating the preceding statements and cases illustrating the principles involved are included in the text of the paper.

Too few are being taught to earn leisure. You can earn it only through work, and you can get work only if you are equipped.

—F. P. McEvoy.

DENTAL HYGIENIST

by EMMA P. ABEL

Editor Journal of Dental Hygienists' Association of New York City

Condensed from New York Jour. of Dentistry

The dental hygienist was brought into being not as a usurper of the work of the dentist under whom she works, but as a distinct benefit for both patient and dentist.

Just as the nursing profession is considered vital to the medical profession, so the hygienist has become a vital part of the dental profession, a fact proven by the more than 7000 hygienists actively engaged in private practice, in schools, and public institutions. Not "heavy dentistry" or a concern for "restorative dentistry" but preventive dentistry led Dr. Alfred Fones to the creation of the dental hygienist.

To be worthy of her honoured position as an ancillary aid to the dentist, the hygienist is carefully trained according to courses laid down by the dental profession, and is adequately equipped to bravely and honourably enter the dental practice.

In offices where hygienists are employed, patients are carefully checked at regular periods. Education

is the keynote. Patients are instructed in the use of the toothbrush, proper home care of the mouth, and nutrition, stressing the foods necessary for sound teeth and bodies. Realizing her obligations to her patients, the hygienist must at all times be alert to any and all developments that will qualify her to better educate.

Among the children, where prophylaxis is most vital, the hygienist also proves her worth. All the modern educational methods are drafted for indoctrination of the children. Through ever-improving models, projection of movies and slides, graphically illustrated books and charts, the school child is forever made conscious of the vital role it plays in helping the dentist keep teeth sound and healthy.

"Can Dentistry Be Saved As A Profession?" The answer is a definite "Yes". The dental profession is constantly making strides forward. Side by side with the dentist is the hygienist, who is intensely interested in greater progress of the profession.

EFFECTS OF FILLING MATERIALS ON THE DENTAL PULP WITH SPECIAL REFERENCE TO SYNTHETIC PORCELAIN

by F. R. SHROFF, D.D.S. (N.Z.)

Conclusions of paper in New Zealand D. Jour., Jan., 1947.

1. The preparation of a cavity under carefully controlled conditions and the sealing of such a cavity with a physiological solution does not cause any very severe injury to the pulp. Oedema, mild inflammation and capillary invasion of the odontoblast layer have been observed, and the end result is always the production of a calcific barrier and a quantity of secondary dentine.

2. The filling of an experimental cavity with synthetic porcelain superadds to the above injuries a severe

inflammatory reaction, the severity of which depends primarily on the proximity of the filling to the pulp. Small differences in the degree of this proximity have a decided effect on the reaction produced.

3. Where this filling approaches the pulp within less than .5 mm., a severe destructive reaction occurs, from which it is unlikely that the pulp is able to recover.

4. If the thickness of dentine between pulp and filling is greater than .5 mm., the odontoblasts are able to

recover in some measure, and a variety of dentine, whose structure varies in nature according to the number of odontoblasts that survive, is deposited.

5. Where the thickness of dentine between pulp and filling is over 2 mm., the reaction is a productive one only, resulting in the formation of tubular secondary dentine.

6. Exceptional reactions of a severe nature occurred in approximately 9 per cent of cases where synthetic porcelain was used.

7. "Zinc oxyphosphate cement containing copper silicate" causes primarily the production of a quantity of secondary dentine with a good barrier between this and the primary dentine. Inflammatory reactions are noted later, usually localized.

8. The reaction produced by this

cement is not nearly as severe as that caused by synthetic porcelain in cavities of similar effective depth.

9. When this cement is used as a lining material for synthetic porcelain, the reactions produced are less severe than with porcelain alone, and more severe than with cement alone. Such cements do not, therefore, form an adequate protection against the injurious effects of synthetic porcelain.

10. A paste of zinc oxide and clove oil introduced into the cavity and immediately followed by synthetic porcelain, forms an adequate, though not a complete, buffer between porcelain and pulp.

11. Silver amalgam causes a mild productive reaction resulting in the formation of a calcific barrier and secondary dentine.

WHAT IS MEANT BY CURE IN TREATING PERIODONTAL DISEASES?

by SIDNEY SORRIN, D.D.S.

Condensed from Fort. Rev. of Chi. D. Soc., May 1, 1947.

- (1) The teeth become firm and useful members of the dental apparatus.
- (2) Suppuration and bleeding cease.
- (3) Pockets are eliminated.
- (4) The gingivae become firm, resistant to infection and of normal colour.
- (5) In some cases, it may be observed roentgenographically that filling-in of bone occurs with the formation of a new lamina dura which extends over the bone; in others, an increase in density of bone is established. However, filling-in of bone does not occur in every case and need not be considered for a

cure. There may be no return to an ideal condition, but the progress of the disease has been arrested and what remains of the periodontium continues to be healthy.

One of the most important factors in the successful treatment of periodontal disease is the ability to diagnose.

Before diagnosis can be rendered, several questions must be considered, based on a complete study of the tissues involved:

- (1) What factors tend to produce the disease?
- (2) How can lesions be recognized?

No man can enjoy the privilege of being a dentist and thereafter, with a clear conscience, break his obligations to the body corporate. To respect those obligations is to be ordinary, to strengthen them is to be a good member, to do more than your share is to be noble, but to ignore them is despicably selfish!—Dr. J. J. du Plessis, New Castle, Natal, S. Africa.

DENTAL EDUCATION AND THE FUTURE OF DENTISTRY

by RUSSELL W. BUNTING, D.D.Sc., Ann Arbor, Mich.

Condensed from Jour. of A. D. A. May 1, 1947

During the past twenty years the dental schools of this country, with few exceptions, have not been filled to their capacity. Although medical schools have had annually five to ten times the number of applicants they could accommodate, the aspirants to dentistry were pitifully few. As a result the privilege of selection of students with high scholastic standings and full qualifications for admission to professional study, which has been exercised by medicine, has been denied to dentistry. For the latter it has been necessary to admit every applicant who had the minimum preprofessional requirements, and in many schools which were dependent on student enrolment and student fees for existence it has been necessary to admit many with substandard records and questionable scholastic ability. Such procedure inevitably must be reflected in the standards of dental education and the calibre of the graduates who take their places in professional life and service.

That is not to say that during these years all dental graduates have been of poor quality, for many outstanding and highly qualified practitioners have been produced. But there have been too many who have not been so well qualified and too many who have been incompetent and should never have been admitted to any profession. The general level of dentistry has thereby been definitely lowered.

Today, almost overnight, as the result of the post-war readjustment, the situation has been markedly changed. Dental schools are deluged by applicants for admission. So great has been the demand that most schools were forced to close their doors to new students long before the opening of the 1946 and 1947 sessions. This almost revolutionary change in attitude toward and interest in dental education is most significant.

In all planning for a widening of the benefits of health service for a larger number of persons it has become more and more evident that dentistry must assume greater and greater obligations. No longer is the sphere of dentistry confined to the four walls of a professional office but rather it is being extended to the general health activities of the state and the nation, and individual exponents of the dental profession are playing an important part in the world economy.

It is reasonable to expect that these broadening interests and responsibilities will continue, and to meet these opportunities every effort should be made to create a type of personnel that can measure up to these challenges to the profession. During this period of increased demand it will not be necessary to admit the poorly qualified or the ill prepared applicants.

The present interest and activity in continuing education in dentistry are highly significant. Dentists everywhere are becoming conscious of their need for advanced study in the various fields of their profession, and the great demands are being made for postgraduate and graduate education.

More and more schools are offering courses in postgraduate training, as is revealed by a recent survey.

Added to these developments are the recent advancements in dental research which have attracted wide attention in the fields of public health.

All these considerations point to a renaissance in dental education and practice that will prevail in the immediate future. If dentistry utilizes its new opportunities wisely, this present trend can be consolidated into a permanent improvement of the profession.

Selection of students should be wisely administered, the dental cur-

riculum should be geared to higher and outstanding achievement and postgraduate instruction should be fostered by all possible means. Every practising dentist should seek to improve his knowledge and skills in order to keep abreast of the rising

tide of his profession. Finally, plans should be drawn soon to consolidate the gains of dentistry during this postwar period and to provide sufficient financial aid to assist outstanding students for whom the present veteran benefits will not be available.

DENTAL TREATMENT FOR CHILDREN WITH CONGENITAL HEART DISEASE

by ABRAHAM KANER, B.S., D.M.D.—PAUL K. LOSCH, D.D.S., Boston, Mass.

Summary of paper in *Jour. of D. for Children*, 2nd Quarter 1947

An outline for dental treatment of patients with congenital heart disease is presented.

These patients can withstand the routine dental operative procedures well, bearing these precautions in mind: (1) No unnecessary trauma (2) avoid prolonged procedures at any one sitting (3) allay fear and apprehension on the part of the patient by explaining to the individual, in simple terms, the procedures to be employed, (4) eliminating or minimizing pain.

Amalgam is immediately inserted into all posterior teeth where the

cavity is shallow. In deep cavities, zinc oxide and eugenol is used as a base. All silicate fillings have zinc oxide and eugenol bases. No root canal therapy is done due to the danger of reinfection.

All surgical procedures should be carried out in a hospital under strict aseptic techniques. General anaesthesia (G.O.E. or cyclopropane) is always employed and local anaesthetics are to be avoided. Patients should receive penicillin and sulphadiazine twenty-four hours before operation and this treatment should be continued until discharge.



Courtesy of Medical Economics



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:

D. T. Wayne, Charlottetown

QUEBEC:

E. T. Bourke, Montreal

ALBERTA:

H. L. Freeland, Calgary

NOVA SCOTIA:

Warren C. Oxner, Halifax

ONTARIO:

T. R. Marshall, Toronto

SASKATCHEWAN:

L. D. Haselton, Saskatoon

NEW BRUNSWICK:

John E. Edgcombe, Saint John

MANITOBA:

J. F. Morrison, Winnipeg

BRITISH COLUMBIA:

H. M. Cline, Vancouver

Editorial

OUR NATIONAL DENTAL CONVENTION

This is the season when dentists think in terms of holidays and conventions. The Montreal Dental Club, the Eastern and Northern Ontario groups are planning for meetings in the near future. The fine Ontario provincial convention is still fresh in our minds. But it is our National Convention at Digby to which I wish to refer particularly.

It is too bad that the Western Canada Dental Society convention at Banff Springs was held at the same time, since this western biennial meeting is always one of unusual excellence, and the fact that these convention dates clashed naturally kept most western men from attending our National gathering. It is to be hoped that such a conflict can be avoided in future for the good of dentistry everywhere in Canada.

The National Meeting was held this year in conjunction with that of the Nova Scotia Dental Association at the attractive Pines Hotel at Digby, N.S. Accommodation was limited but every obstacle seemed to have been anticipated and overcome by the efficient committee in charge, some of whom worked so hard that they said they would have to wait for the Journal to appear in order to find out just what had taken place.

Every officer holding a responsible position seemed to be alive to his responsibilities due in no small part to the superb leadership of the General Chairman, Dr. H. M. Eaton of Halifax. Nor can we forget the splendid

entertainment arranged for the ladies by the Ladies' Committee under the efficient direction of Mrs. J. S. Bagnall.

These Dalhousie people know how to accomplish things. We were told that among the dental graduates of this University there were to be found seven pairs of twins and one set of triplets. Perhaps Dalhousie has something not found in other universities.

As one listened to the lectures one could not help but realize that medicine and dentistry were being drawn closer and closer together, that the biological sciences were coming to the fore, that nutrition and prevention were beginning to receive an emphasis long overdue, and that if the dentist was going to receive the just rewards of his many years of training, he must make use of auxiliary help in a way hitherto little dreamed of so that he may be able to devote his own time to those duties and responsibilities of which only he is capable of undertaking.

It was again emphasized that if the number of meals eaten during the day was limited to say three and if sweets were eaten only at meal time, that dental caries would be greatly reduced, that the chief effect of eating sweets, as far as dental caries is concerned, takes place within about fifteen minutes after partaking of the same, and that the effect is pretty well over within half an hour, therefore, the teeth should be brushed as soon as possible following meals and sweets should not be indulged in between meals.

The many group clinics were of a particularly high order yet many were not well attended but what could one expect when a convention is held at so attractive a place as the Pines. With ideal swimming, golf, tennis, motoring and deep sea fishing, how could one be expected to listen to lectures all morning and attend clinics all afternoon?

Immediately following our meeting there was held at the Pines a convention of the Canadian Research Club, the Maritime Accessories Limited acting as host. This meeting lasted the best part of a week. There was a business session every morning from nine to twelve but the program for each afternoon read, "Do as you please" or, "You're on your own." Here is a suggestion for our conventions in future. The gulf between ideological perfection and dental orthodoxy should be bridged. There is no need to administer the traditional bromides. Despite the seriousness of our calling, let us meet when we can at Banff, Jasper, the Pines, Manoir Richelieu, some large Muskoka Hotel or other resort, let us add a few days, if necessary, to our convention dates, let us work hard in the morning, and perhaps listen to a fine address following the evening dinner but give us the afternoon off for recreation and the sum total of the beneficial effect will be greatly enhanced.

Yes, we came back home feeling that the "Order of Good Cheer" still flourishes, thanks to our host, the Nova Scotia Dental Association.

M. H. G.

BOOK REVIEW

Dental Caries, Its Aetiology, Pathology, Clinical Aspects and Prophylaxis, by Bernard Gottlieb, M.D. (University of Vienna), D.M.D. Hon. (University of Bonn), L.L.D. Hon. (Loyola University of Chicago), Professor of Oral Pathology and Dental Research, Baylor University, College of Dentistry, Dallas, Texas; formerly Professor and Head of Department of Histologic Research, College of Dentistry, University in Vienna. 222 illustrations and 7 colour plates containing 59 illustrations. Published by The Macmillans in Canada, St. Martin's House, Toronto. Price \$10.00.

This book deals with the "Development and Structure of Enamel"; "Acid Action on Enamel"; "Enamel Caries"; "Acid Action on Dentine"; "Dentine Caries"; "Cementum Caries"; "Secondary Dentine and Related Problems"; "Abrasion"; "Caries Prophylaxis by Impregnation of the Invasion Roads", and "Fluorine and Teeth".

This book which is beautifully printed and splendidly illustrated should be in every dental library. When one of such international reputation as an outstanding research worker

places his thoughts on paper, these statements should be read.

This monograph on dental caries is based entirely on the special pathology of the tissues concerned. As the author points out, dental caries is as common as the common cold, however, the necrotized part of the body in the caries process is superficially located, yet it cannot be eliminated by biologic severance. It is further pointed out that the term "dead tooth" applied to a tooth with a necrotic pulp is erroneous, unless the periodontal membrane is likewise necrotic or is absent due to cementopathia. Dr. Gottlieb also emphasizes that, as dentists, we must realize that we are sentinels at thirty-two very tricky entrances to the body, that there are many occasions when we may lose a battle and thus lose a tooth; that there are many occasions when loss of a battle may mean loss of health, and in some cases even loss of life.

The author may and does hold viewpoints that are different to those expressed in other textbooks, however, these viewpoints should be studied carefully by every dentist who is conscientiously trying to serve humanity to the best of his ability.

M. H. G.

CORRESPONDENCE

LEMON JUICE

July 2, 1947

To the Editor:

I am writing regarding an article in the June issue of the Journal of the Canadian Dental Association on the "*Dissolution of Tooth Substance by Lemon Juice*". The illustration in the article prompts me to add a few comments which might be helpful.

For the last fifteen years I have been observing this condition which is, in my opinion increasing, due to synthetic bristles, poorly designed brushes with too stiff bristles, tooth pastes and powders that act as an abrasive on the teeth. If the condition referred to in the article was due to lemon juice there would be an even dissolution of the enamel on both sides of the mouth. Evidently this has not taken place. If the author would re-check on the patient whose photograph appears, I

would like to hazard a guess that the patient is right-handed throwing most pressure in brushing on the left-hand side of the mouth; the cuspid tooth which is most prominent getting the first shock of wear. My second guess would be that he has been using Dr. West's tooth brush or one of similar shape with medium or hard bristles and along with that using Pepsodent tooth paste. This combination, according to my findings, is the most destructive as far as abrasion is concerned. I have many such cases referred to me to be restored with porcelain jacket crowns or porcelain inlays. I have come to the conclusion that something should be done to educate people away from the use of these two most destructive highly advertised products. While lemon juice may be a factor I am convinced that it is a minor one. I have had a number of patients with erosions as great as

the ones illustrated that do not use lemon juice and have found that the erosion almost ceases to exist after they change to properly shaped, softer bristle brushes and a tooth paste that is not abrasive in action.

I write this with the hope that the profession as a whole will make a serious study of this condition and make definite recommendations to prevent it.

HAMILTON, ONTARIO

J. N. STEWART

CANADIAN DENTAL ASSOCIATION NEWS

Canadian Dental Golf Meet

The Canadian Dental Golf Association which was formally organized at Halifax in 1926, held its Annual Meet at the Pines course in Digby on June 25. The ladies' competition followed the a.m. of the 26th. A committee consisting of Drs. J. H. Rice, John Dobson, and Guy Stults were in charge of the meet.

MEN'S COMPETITION

Prize winners were as follows:

Championship Cup—resulted in a tie, gross 85, by K. M. Phillips of Welland and C. H. M. Laidley, Toronto. In a toss, Laidley won the Championship Cup, and Phillips the Runner Up Cup.

Maritime Championship Cup: J. H. Rice, Halifax.

Handicap 1-20—R. C. MacNeil, Toronto.

Handicap 21-30—Walter E. Harlow, Bridgetown, N.S.

Sealed Holes—H. O. Harding, Yarmouth; A. M. Weldon, Toronto; S. K. Donald, Moncton; Charlie Denyar, Halifax.

Low-Net—J. D. Evans, Toronto; W. C. Carruthers, Saint John, N.B.; T. A. Robinson, Brampton, Ont.; G. N. Stults, Halifax; T. R. Marshall, Toronto.

High Gross—John E. Merritt, Halifax.

LADIES' COMPETITION

Low Gross—Mrs. G. P. MacIntosh, Parrsboro, N.S.

2nd Low Gross—Mrs. C. H. Craig, Amherst, N.S.

3rd Low Gross—Mrs. A. J. Coughlan, Saint John, N.B. The other players received golf balls as prizes.

It has been suggested that beginning with this meet, the Chairman of the Golf Committee keep a record of the names of the cup winners in the men's division, so that this information may be sent to the Chairman of the next meet in ample time to call the cups in, and have them put in shape for the succeeding meet. In the past there has been some difficulty in locating cups; indeed two of the originals have disappeared.

W. C. OXNER

NEWS FROM THE PROVINCES

NEW BRUNSWICK

Number of Dentists in Province

This province has the lowest number of dentists per capita of any province in Canada and it is to be hoped that the number will increase sufficiently to meet the requirements, according to the dental registrar, as quoted in the Montreal Gazette.

NOVA SCOTIA

New Dean at Dalhousie

W. W. Woodbury B.Sc. D.D.S. has resigned as Dean of the Dental Department of Dalhousie University. He was appointed to that

position in 1935. Equipped with a scientific mind, executive ability and a keen interest in the University from which he obtained his B.Sc. the department has prospered under his leadership. Dr. Woodbury also has been Professor of Orthodontia, which subject he is continuing to teach. A precedent had been established in his family, as his uncle the late Dr. Frank Woodbury was the first dean of this department at Dalhousie.

The new dean is Stanley Bagnall, D.D.S., F.A.A.R.D., who is well known throughout Canada. Since his graduation at Dalhousie in 1921, he has been a full time instructor and Professor of Prosthetics at the University, and his long association with students, and experi-

ence in teaching will be valuable assets in his new position.

Other changes on the teaching staff, are the resignation of Dr. W. H. H. Beckwith as Professor of Operative Dentistry, his successor being Dr. John Dobson, and of Dr. Warren C. Oxner, who gave up the chair of Crown and Bridgework and Ceramics, the new appointee being Dr. G. A. Chudleigh.

Annual Meeting of the Nova Scotia Dental Association

As the meetings were held at the Pines in Digby in conjunction with the C.D.A. the sessions were confined purely to business.

The following officers were elected or appointed for 1947-48:

President Dr. H. M. Eaton, Halifax

Senior Vice-Pres.

Dr. Ross Harrington, Bridgewater

Junior Vice-Pres.

Dr. G. B. Richmond, Sydney

Secretary: Dr. A. Borden Haverstock, Halifax

Member to complete the Executive: Dr. J. P. McGuigan, Halifax.

Auditors: Dr. G. A. Chudleigh, Dr. J. P. McGuigan.

Oral Hygiene Committee:

Drs. J. H. H. Rice, P. S. Christie, J. W. Dobson and G. M. Dewis, of Halifax; L. B. Layton, of Annapolis Royal; O. C. Taylor, of Antigonish, and A. B. Anthony, of Yarmouth.

C. D. A. Delegate ... Dr. V. D. Crowe, Truro

Alternate Dr. G. M. Dewis, Halifax

Provincial Dental Board

President—Dr. W. H. H. Beckwith, Halifax.

Vice-Pres.—Dr. S. G. Ritchie, Halifax; Dr. M. E. Morrison, Antigonish; Dr. L. G. Israel, Sydney.

Sec.-Registrar—Dr. G. M. Dewis, Halifax; Dr. J. H. Rice, Halifax; Dr. W. R. Fraser, New Glasgow; Dr. H. O. Harding, Yarmouth.

D. D. C. Representative—Dr. Warren C. Oxner, Halifax.

Alternate—Dr. John Dobson, Halifax.

Moved by Dr. J. S. Bagnall (Dr. Ross Har-

ington in the Chair) "That a most sincere tribute be paid Dean W. W. Woodbury for his great services to Dentistry during his period of office as Dean of Dentistry of Dalhousie University".

Seconded Dr. F. W. Johnstone—carried.

After recommendation by the Provincial Dental Board, it was moved by Dr. G. M. Dewis, seconded, Dr. Don Eaton and carried "That the annual fees for the practice of Dentistry in Nova Scotia be increased from \$10.00 to \$15.00 per annum effective July 1, 1947."

This was to permit increase of dues to the C. D. A. in this province from \$5.00 to \$8.00 per annum.

BRITISH COLUMBIA

B. C. Dental Association

The new Executive of the B. C. Dental Association appointed at the Banff meeting is composed of the following:

President—Dr. T. H. Johns, Victoria, B.C.

Pres.-elect—Dr. G. A. C. Walley, Vancouver, B.C.

Secretary—Dr. H. R. Turner, Victoria, B.C.

Treasurer—Dr. R. L. Pallen, Vancouver, B.C.

Board of Censors—Dr. A. H. Gunning, Victoria, B. C.; Dr. L. H. Chapman, Vancouver, B. C.; Dr. L. E. English, Kamloops, B. C.; Dr. J. A. Barber, Chilliwack, B. C.

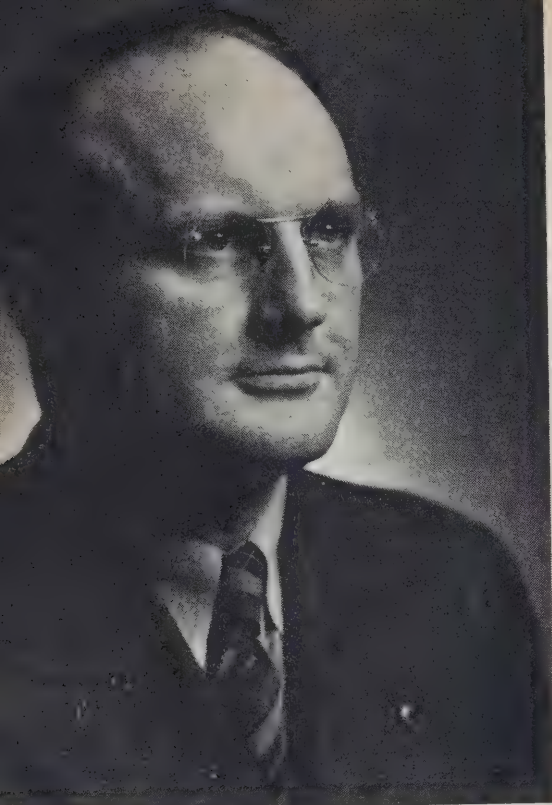
Oldest Practising Dentist

Dr. A. J. Garesche of Victoria, aged 87, has been active in the practice of dentistry for the past 66 years. He is still going strong and, at the Western Canada Dental Society Convention held at Banff in June, displayed a fine collection of old-time dental instruments.—Calgary Alberta Herald.

ONTARIO

Dean Ellis to be Honoured

A dinner will be held in honour of Dr. R. G. Ellis, newly appointed Dean of the Faculty of Dentistry, University of Toronto, on Friday, November 14, 1947, in the Crystal Ball Room of the King Edward Hotel, Toronto, at 7.00 p.m. All graduates invited.



DR. L. R. BRADEN, *President*
Eastern Ontario Dental Association

OFFICIAL PROGRAM EASTERN ONTARIO DENTAL ASSOCIATION

*Seventieth Annual Meeting, Chateau Laurier,
Ottawa, Sept. 21, 22, 23, 1947.*

SUNDAY, SEPTEMBER 21, 1947

11.00 a.m.—Golf—Ottawa Hunt Club.—Con-
vener Dr. W. Allen Armstrong.

8.30 p.m.—Sunday Evening Musicales—Con-
vention Hall. Sponsored by the Exhibitors'
Association.

EXHIBITORS' EXECUTIVE:

President P. Hannaford
Vice-Pres. L. Akeson
Secretary H. Harris
Executive H. Hall, E. Olstad

A cordial invitation is extended to all members
and their families attending the Convention.

MONDAY, SEPTEMBER 22.

8.30-10.00 a.m.—Registration and exhibits.

10.15 a.m.—President's Address. Appointment
of nominating committee.

10.30-12.00 noon—Dr. L. R. Twible, Toronto.
Title:—"A method of building anatomical
dentures on either a straight line (simple)

or an anatomical (adaptable) articulator."

12.30 p.m.—Joint Luncheon with Dentists'
Wives Association, Quebec Suite, Chateau
Laurier. Guest Speaker: Mr. Lance Rumble,
Manager of General Motors of Canada.

2.30 p.m.—Dr. P. J. Aufderheide, Cleveland,
Ohio. Title: "Technique used in Removing
Teeth to Minimize Fracturing Roots and
Alveolar Process."

4.00 p.m.—Mr. Henry Cavill, Montreal, Asso-
ciate Professor of Economics, McGill Uni-
versity. Title: "Is it Rock or Cushions For
You at 60?"

6.30 p.m.—Dental Public Health Dinner.
Speaker: Dr. Leo Sturgeon, c/o Welland
Crowland Health Unit, Welland, Ont.
Guests: Dr. H. Swales; Dr. S. A. Mac-
Gregor; Dr. G. Clark; Dr. T. A. Lomer
and Dr. R. J. Smith, both of the Board of
Health, City of Ottawa.

8.00 p.m.—Exhibitors' Night.

Table Clinics by Dentists, Manufacturers,
Exhibitors and Dental Nurses.

TUESDAY, SEPTEMBER 23.

9.00 a.m.—Dr. H. Nevin, New York.

Title: "Infiltration and Conduction Anaes-
thesia for General Practitioner." Your
everyday mistakes.

11.00 a.m.—Dr. P. J. Maloney, Pedodontist,
Ottawa. Title: "Dental Problems from the
Pedodontist's Viewpoint."

12.00.—Exhibits.

12.30 p.m.—Lunch where you wish.

2.00 p.m.—Dr. P. J. Aufderheide, Cleveland,
Ohio. Title: "Oral Surgery Applicable to
the General Practitioner's Practice."

3.00 p.m.—"Potpourri of the Convention"
by Dr. L. R. Twible, Dean R. G. Ellis, Dr.
H. Nevin, Dr. C. M. Purcell, Dr. P. J.
Aufderheide, Dr. R. P. Lowery, Henry
Cavill.

4.00 p.m.—Business Meeting.

6.30 p.m.—Dinner, Quebec Suite, Chateau
Laurier. Speaker: Dr. A. E. Cliffe, Mont-
real. Title: "It's up to you."

Registration Fee \$10.00—Includes Luncheon
and Dinner Monday; Dinner Tuesday.

The Ladies' Committee will be on hand to
welcome the visiting ladies. They are invited
to the Monday Luncheon.

MARK OFF THE DATES

Sept. 21, 22, 23, 1947. Chateau Laurier.
Please Make Your Own Hotel Reservation.

Grey, Bruce, Dufferin Dental Society

The tenth annual meeting of this Association was held on June 18 and as usual it was a gala day. The Owen Sound Golf and Country Club was the centre of activities and some fifty dentists and friends were on hand to enjoy the program. As usual Toronto was represented among the guests in the persons of Dr. Arnold D. Mason, Dr. J. H. Johnson, Dr. R. J. Godfrey and Dr. R. S. Woollatt all of whom made short addresses at the evening banquet.

Dr. R. L. Martin, newly appointed secretary of the society, in a letter describes the program of the day—

"The afternoon was spent in golf and fishing. Some of the fishermen were taken to the trout streams by Dr. N. K. Douglas of Owen Sound while others enjoyed the afternoon on Georgian Bay fishing for lake trout. Opinion varied as to whether the fine trout displayed at the golf club by the fishermen were caught or bought.

For the golfers, Jack McTavish of Toronto had the low gross and Dr. Lawson of Listowel the low net.

Officers in charge of arrangements were Dr. H. Zinn, Shelburne, President; Dr. D. A. Cheetham, Owen Sound, Secretary. Dr. Harry Legate arranged the golf and the fishing trips were in charge of Drs. Douglas, Bebee and Martin, all of Owen Sound."

Officers of the Society for 1947-48 are—

President—Dr. G. H. McKee, Owen Sound

Vice-President—Dr. Roy Blackwell, Kincardine

Secretary—Dr. R. L. Martin, Owen Sound

Directors—Drs. Clifford Sudden, Dundalk, and A. Dixon, Walkerton.

Banquet in Honour of the Retiring Members of the Staff

Chancellor H. J. Cody, President Sidney Smith and over eighty members of the Faculty of Dentistry gathered at a banquet at the Granite Club, Toronto on June 17 to honour Dean A. D. A. Mason and the six members of the staff retiring this year from the roster of teachers of the school.

Dr. Mason was presented with an inscribed sterling silver jewel box by the Faculty and an equine figure of porcelain sculpture by the ladies of the staff. Dr. C. A. Corrigan, Dr.

F. J. Conboy, Dr. Fulton Risdon, Dr. W. L. Hugill, Dr. G. H. Coram, and Dr. S. M. Richardson were each presented with silver trays, by Assistant Dean Cowling.

Dean-Elect Dr. R. G. Ellis, Chairman for the evening, drew attention to the splendid careers of the seven men, whose total time with the school actually amounted to 230 years, or an average of 33 years each; a grand record, he said, of serving Dentistry well.

Dr. Edgar Paul made the presentation to Dr. Mason for the Faculty and recalled that the Dean and he had entered the freshman class 49 years ago, and since that time his classmate had risen to occupy almost all the positions of honour that Dentistry could bestow, including the degree of F.A.C.D.

Dean of the Faculty since 1936, his professional career and his well rounded life with many outside interests were an example for any young dentist to emulate.

In thanking the Faculty for the fine gifts Dr. Mason stated that he was taking his retirement with mixed feelings but was looking forward to his leisure with keen anticipation. The future, he felt, held promise for the same happiness that had marked his life. If he were given the chance to live his life all over again he would choose to live it the same way. A happy boyhood in the rustic atmosphere of his father's estate at Bedford Park, North Toronto had been a wonderful start and had enriched all his years since.

Dr. Paul and Dr. Corrigan had been his staunch friends from their youth together. Dr. Corrigan was a man with a genius for forming lasting friendships and had more friends than any man he knew.

Paying tribute to the others of the group, he lauded Dr. Richardson and Dr. Coram, men of great ability whose retiring dispositions led them to avoid the limelight but whose great service had left its mark on the profession with better dentistry.

Dr. Hugill, he stated, was a man of most exacting standards but with a character that made him continually sought after by his students, for council and advice.

Dr. Fred Conboy was a man who had had a rapid rise and splendid service in civic life. Just as successful in church work, he had built a tiny Sunday School Class into a great organization of national renown.



PRESENTATION TO DEAN A.D.A. MASON

Left to Right:—Mrs. R. G. Ellis; Rev. Dr. H. J. Cody; Dean A. D. A. Mason, (to whom presentation is being made); Dr. E. W. Paul; Dr. R. G. Ellis; President Smith.

Dr. Risdon, he continued, was a tower of strength to the dental profession as a teacher, a man who had given himself magnificent training, first a graduate in Dentistry, then a practicing Orthodontist while he was studying medicine, to be followed in turn by his unexcelled surgical experience in the First Great War.

Speaking of the growth of the Dental School, Dr. Mason concluded with the observations that its training in Public Dental Health was second to none on the continent, its courses for training specialists were of the highest standards, and that the Faculty had made great contributions in the field of research. The walls of the building had been expanded until the breaking point had been reached and they could stretch no more and still they could not keep pace with the increasing stature of the school. Hence a new building was imperative as soon as possible.

Expressing regret at the retirement of the Dean and his colleagues, President Sidney Smith complimented them on their fine records and explained how Dr. Mason had come

to him in 1945 and suggested that he be relieved of his services, and how, on that occasion and on two other occasions later, he had persuaded him to continue in office.

Commenting on the culmination of his own connection as Chancellor of the University, Dr. Cody, in his address, remarked that what had been attributed to him in the press about fighting to the bitter end were words which he had never used nor ever dreamed of using. "I have not been a combatant, nor yet a gladiator," he chuckled, "but rather, as the medical people used to say, 'the Corpus Vile' upon which an interesting operation was being performed."

The union of the Royal College of Dental Surgeons and the University of Toronto, he went on to say, had been of great benefit to both organizations, and the dream of better accommodation with a new dental building would certainly come true if everyone in the dental profession and the University worked together on it.

The banquet concluded with the announcement by Dr. Ellis that Dr. Mason would receive the title of Dean Emeritus.



FACULTY OF DENTISTRY GRADUATION—UNIVERSITY OF TORONTO

The names of those who graduated and those who won prizes follow:

SCHOLARSHIPS AND PRIZES

Oral health theses prizes-1, G. A. Cuthbertson, I. S. Cook (aeq.); 2, J. R. Fletcher.

Albert E. Wabster Memorial scholarship—F. W. Banford; Wallace Seccombe Memorial scholarship—G. Nikiforuk by reversion to J. A. Guest by reversion to B. Hemrend; W. George Switzer Memorial award—A. B. Hord; Wallace Seccombe general proficiency prize—D. E. W. Boyd; Dental Students Parliament prize—W. J. Dunn; Harold Keith Box gold medal—G. Nikiforuk by reversion to J. Fletcher; Harold Keith Box silver medal—J. Fletcher by reversion to H. Parrott; First Henry Thompson scholarship—G. Nikiforuk; Second Henry Thompson scholarship—J. A. Guest; Academy of Dentistry prize—E. R. W. Bilkey.

HONOURS

Banford, F. W.; Fletcher, J. R.; Guest, J. A.; Hord, A. B.; McKee, D. M.; Nikiforuk, G.; Parrott, H. C.; Brown, J. M.; Clark, L. M.; Cloke, E. J.; Cuthbertson, G. A.; Jackson, A. S.; Karpin, L.; McCallum, B. D.; Webb, V. P.; Wigley, H. W.

PASS

Abrahamsen, Julius; Anker, Gordon Samuel; Barootes, Constandinos William; Bilkey, Edward Ralph Wood; Bogue, Laurence James; Boyd, David Edmund Watt; Cornish,

Miss Eleanore Alice Elizabeth; Crouch, Stuart McFaul (Dental Surgery and Medicine); Culotta, Victor Joseph; Downey, Lloyd Elvin; Dundas, Miss Ruth Alvena; Dunn, Wesley John; Gibson, Malcolm John; Green, Ralph; Hemrend, Bernard; Hinch, Bernard Joseph; Hugill, Russell Alan; Jacobs, Sidney; Klasen, Miss Helen Champion; La Framboise, Joseph Vincent Nelson; Lemieux, Joseph Andre; Leuty, Robert Douglas; Levine, Harvey Leslie; Lindsay, Ronald Keith; McBride, Leonard Rogers; Mason, Harold Arthur McLean; Mednick, Samuel; Oldfield, James Bruce; Petruccio, Charles Louis; Reid, John Alexander; Ritz, David; Sinclair, Donald Allan; Stevens, Harold Frederick; Stinson, Robert James; Tripp, John Henry; Vandervoort, Ralph William; Vickers, Norman Henry; Weaver, Murray Aycarst.

ADVANCED STANDING

Bain, William Haig; Basil-Jones, Owen Brierley; Bayley, Alford (Periodontology); Boyd, Russell Thomas Frederick; Cook, Iain Stalker; Deakins, Richard Frederick; Freeman, Deneb David; Hyams, Bruce Godfrey; Lawson, Robert Alfred; McGovern, John Edward; Neeson, Cyril Patrick; Osborne, Theodore Neville; Roberts, Gerald Holgate; Roxburgh, Lorne MacIntyre; Sertori, Joseph Lawrence; Teiffel, Edward Sewell; Watson, Francis Xavier; Weir, Miss Ellice Marie; Williams, Ernest Henry; Hanson, Ed. Bellamy.

New Building for Doctors and Dentists

Tenders have been called for the erection of a seven-storey \$1,000,000 physicians' and dentists' building in Toronto, to be located on Bay Street, south of College.

Faculty of Dentistry, University of Toronto

The Board of Governors of the University of Toronto have announced the following promotions in the Faculty of Dentistry to be effective from July 1, 1947:

Dr. P. G. Anderson, from Associate in Dentistry to Professor of Operative Dentistry.

Dr. J. Kreutzer, from Associate Professor of Preventive Dentistry to Professor of Preventive Dentistry.

Dr. F. L. Cole, from Associate in Dentistry to Associate Professor of Prosthodontia.

Dr. H. Halderson, from Associate in Orthodontics to Associate Professor of Orthodontics.

Dr. H. S. Thomson, from Associate in Dental Public Health to Associate Professor of Dental Public Health.

Dr. M. R. Culbert, from Demonstrator in Dentistry to Assistant Professor of Orthodontics.

Dr. G. W. Johnston, from Demonstrator in Dentistry, to Associate in Dentistry.

Dr. E. B. Hooks, from Demonstrator in Dentistry to Associate in Dentistry.

Dr. E. P. Downton, from Demonstrator in Dentistry to Associate in Dentistry.

New appointment: Dr. H. M. Worth, Lecturer in Radiography. (Dr. Worth holds the position as Chief of Radiology, Wellesley Hospital and was formerly Radiologist, Guy's, London, Eng.).

Mr. W. E. Secord, A. B. Chic., who has taught Principles of Accounting to dental students and students in Dental Nursing for several years has now been appointed Lecturer in this subject.

Members of Faculty of Dentistry retiring or resigning June 30, 1947.

Retiring:

Dean Arnold D. Mason, who retires as Dean Emeritus.

Dr. Charles A. Corrigan, Professor of Orthodontics.

Dr. Fred. J. Conboy, Professor of Dental Praxis.

Dr. S. M. Richardson, Associate Professor of Radiography.

Dr. Fulton E. Risdon, Associate Professor of Oral Surgery.

Dr. F. Arnold Clarkson, former Associate of Medicine from which he resigned June 30, 1946, is relinquishing all teaching June 30, 1947.

Dr. George H. Coram, Associate in Dentistry.

Resigning:

Dr. W. L. Hugill, Associate in Dentistry.

Also Dr. Lee A. Kilburn, Associate Professor of Dental Praxis, has just handed in his resignation.

Toronto East Dental Association

Annual golf tournament at Cedar Brae Golf and Country Club on September 19. Tee off at 1.30 p.m., dinner at 7.00 p.m. You are invited, please contact secretary if you plan to attend.

C. W. SMYTHE, President,
WALTER GODSOE, Secretary,
LEON HIPWELL, Chairman.

Toronto Alumni Chapter Alpha Omega Fraternity Program

The program for 1947-48 for this Chapter has been completed.

On September 9 the opening dinner meeting will be addressed by Dr. L. Burman of New York, National Insurance Secretary of Alpha Omega. An afternoon Clinic in Periodontology will also be presented. In October the annual Dinner Dance Ladies Night will be held at Malloney's Art Gallery. On Tuesday, December 9, the annual business meeting will be held. Tuesday, January 27, afternoon and evening sessions on Prosthetic Dentistry will be conducted by Dr. Samuel Cohen of Cleveland. On Tuesday, March 23, the guest speaker will be Mr. J. Robinson of Albany whose subject will be Economics and Business Management. The final meeting in conjunction with the Ontario Dental Association convention will be held on Monday, May 17. On that occasion the speaker will be Mr. H. Mowat of the Canadian Palestine Organization on Problems of the Near East. All events will be conducted at the Royal York Hotel except the Ladies Night function in October.

H. M. JOLLEY, Secy.

Northern Ontario Dental Association Convention

Date—September 6, 1947.

Place—Park Lane Hotel, Kirkland Lake, Ontario.

PROGRAM

Registration—9.30-10.00 a.m. E.D.S.T.

10 a.m.—Mr. Jordon Allen

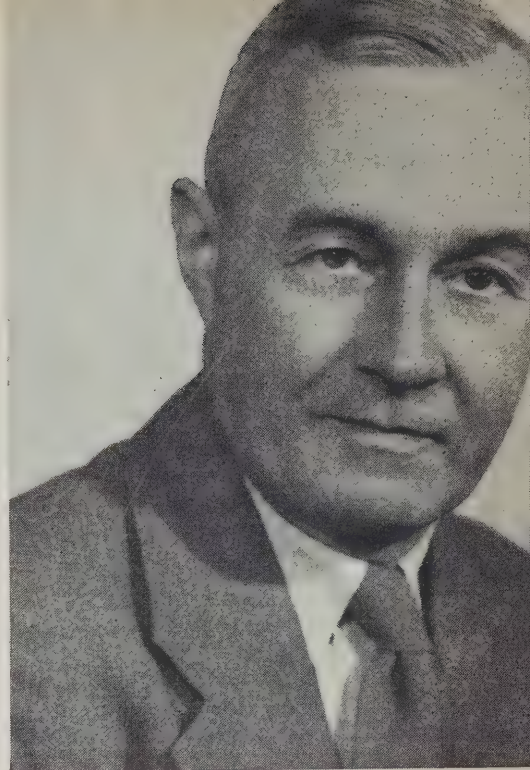
12 noon—Dental Public Health Luncheon

2 p.m.—Dr. R. E. Diprose: Subject "Some Fundamentals of Dental X-Ray and Interpretation."

The balance of the afternoon program is not as yet complete as of July 10, but a dinner party is arranged for the evening which will include the ladies attending the Convention.

A special luncheon and entertainment is being arranged for visiting ladies who attend the meeting.

It is expected most Northern Ontario dentists will be on hand supporting their own Association. Dental colleagues from other parts of Ontario will be made very welcome.



DR. PERCY HILL, *President*
Northern Ontario Dental Association

2T2 Twenty Fifth Anniversary Dinner

The Twenty-fifth Anniversary is a milestone of some particular significance in one's professional career, or at least the members of 2T2 Dentistry seem to think so. In spite of time, distance and the "grim reaper," they turned out in amazingly large numbers for the best attended and most enthusiastic reunion of their history.

The event took place on the evening of May 19 at the Royal York Hotel in Toronto, on the occasion of the Annual Convention of the Ontario Dental Association.

In the fall of 1918 this Class started at the College of Dentistry of the R.C.D.S., of Ontario, and in its ranks were many returned soldiers of the 1914-18 war. Also, there were six young ladies. Twenty-nine years later at this reunion, several veterans of the second great war were present, and four of the same ladies were with us.

When the Class graduated in 1922 it was 180 strong. In the intervening years, death has claimed 26, about 10 have ceased to practise dentistry, and about 10 could not be traced. That leaves about 134 still practising dentistry in various parts of Canada and the United States, and with one in India.

Of that 134, 90 attended the reunion, or about two-thirds of the active Class members.

To George Heidgerken of Humboldt, Saskatchewan goes the honour of having come the greatest distance. He arrived in Toronto by air on the morning of the reunion, and was not in the convention lobby five minutes before he was surrounded by a large group of his classmates whom he had not seen for 25 years. He said, that the first five minutes made the whole trip worthwhile.

The Detroit contingent, which is quite large, was there almost 100%, but they are always very faithful annual attendants at the convention.

A few of those whom we of Toronto and surrounding districts have not seen for several years, are Bill Gray, Pat Girvin, Joe Gauthier, Bruno Rouleau, Charlie Rogers, Braithwaite Dixon, Joe Feinberg, Lou Perlman, Abe Lane, Murray Wilson and Edgar Niebel.

One notable absentee, was Eugene Keyes. His career is so unique that a thumb nail sketch is quite in order. Shortly after graduation he went to Detroit to practise. Soon he

decided to take a medical degree, and while attending Medical School, he maintained three dental offices. After graduating from Medical School, he decided to build and operate a small private hospital. Becoming involved in legal difficulties due to building restrictions, he decided to be his own lawyer, and so attended, and eventually graduated from law school.

His next venture was into politics where he was so successful that he is now serving his second term as Lieut.-Governor of the State of Michigan. At the present time he practises Dentistry, Medicine and Law, is Lieut.-Governor, and owns and operates a fifty bed hospital. One of his Detroit classmates was heard to say, "Keyes is going places." We wonder where there is left for him to go. Having been born in Canada we know he cannot aspire to the President's office.

As the State Senate was in session, and he had to preside, it was impossible for him to be present at the reunion. He sent his regrets both by letter and telephone.

At the head table sat retiring Dean Mason, Dean-Elect Roy Ellis, Chairman Ken. Harris, the four ladies, Joe Dietrich and Bob Dunlop, both of whom had been Class Presidents, Ira Hamilton representing the veterans, Bob Marshall, Bill Long, Class Treasurer, and Stu Holmes, Secretary.

Dinner, short addresses from the head table, salutations to the dead, presentation of flowers to the ladies, and a splendid vaudeville show made up a never-to-be-forgotten evening.

In looking about the gathering, one could not help but feel that dentistry had treated these men well, and conversely, one felt that dentistry was in pretty good hands too.

Another observation of some importance to dentistry was the fact that many of these men have sons who are dentists or are going to become dentists. There can't be much wrong with dentistry as a profession and life work, when so many sons of dentists aspire to it.

STU. HOLMES

QUEBEC

University of Montreal Gives Honorary Degree to Dentist

J. A. N. Thibert, Fitchburg, Mass., was awarded the honorary degree of *Doctorat Honoris Causa* from the University of Montreal at the recent convention of the Franco-American Dental Society in Boston.

Dr. Thibert, one of five dentists who have been so honoured in the United States by the University, was awarded the degree in recognition of his work among Franco-Americans and in dental societies. Dr. Thibert was a founder and first president of the Franco-American Dental Society.

EMPIRE NEWS

GREAT BRITAIN

Submitted by the Council of the British Dental Association to the Joint Meeting of the governing bodies of the BRITISH DENTAL ASSOCIATION, the INCORPORATED DENTAL SOCIETY and the PUBLIC DENTAL SERVICE ASSOCIATION, June 4 and 5, 1947.

Condensed from Br. D. Jour., June 20, 1947.

The Representative Board instructed the Council to prepare a statement setting out the points of principle which have not been conceded by the Government and these points are enumerated in the subsequent paragraphs.

1. Failure to Promote and Establish a Comprehensive Dental Service.

2. Clinical Freedom.—While a dentist will be allowed to proceed with certain items of treatment, including root treatment, the great bulk of everyday dental treatment will require prior approval. The "measure of clinical freedom" promised to the profession is largely illusory.

3. Dilution. — No adequate assurances against dilution have been forthcoming. There are, indeed, already indications that the use of dental hygienists is favourably regarded and the possibility of further dilution by dental mechanics cannot be ruled out.

4. Remuneration.—It is clear that the general dental practitioner is to be remunerated on a rigid scale of fees.

In addition to the Scale laid down for "free" treatment there will be a further Scale under Clause 44 to allow a patient, if he desires, to obtain appliances of a more expensive nature and what is termed "special" treatment. For all practical purposes these mean metal dentures and gold inlays. The effect of this will be that the patient will pay the difference between the fee laid down for the routine treatment and the prescribed ceiling fee for the more expensive appliance or "special" treatment. The amount, up to the ceiling fee, will be regulated by the Estimates Board, and the full amount will not necessarily be allowed in all cases. In no sense of the word does this constitute "grant-in-aid"; it is in effect the special estimate system.

A low standard of treatment will result under a system involving a rigid scale of fees for the whole profession.

Where a dentist, for good and sufficient reasons, is not prepared to undertake "more expensive" treatment at the prescribed ceiling fee (or indeed, any of the routine treatment at the Scale fee), and the patient desires to pay the dentist the fee which the latter is prepared to accept, the patient must forego his title to "free" treatment in respect of any other items of treatment arising out of the same estimate. The patient will be responsible to the dentist for the cost of the whole treatment—routine as well as "more expensive."

The satisfactory way in which service under the Act can be undertaken by the whole profession is by remuneration under a "grant-in-aid" system. Under such a system, as in New Zealand and France, each practitioner is allowed to charge his normal fee in respect of each and every operation, the patient paying the total fee and receiving a "grant-in-aid" from the Government. In this way those practitioners who are concerned purely with the quality of their work will be enabled to enter the service and thus bring their skill and experience within the range of a much larger section of the population than at present. Due allowance would also be possible in respect of those practitioners who have high overheads due, for example, to their employment of experienced technicians and other staff, up-to-date equipment and well-appointed premises.

Under a rigid scale of fees a highly skilled

practitioner of twenty years' standing would earn the same remuneration as a newly qualified practitioner in full employment—as he would be under the Act.

5. Autonomy of the Profession.—The provision for a Standing Committee on Dentistry for advisory purposes, local dental committees and dental services committees for executive purposes, together with the recently created dental division of the Ministry of Health do, to a certain extent, provide autonomy for the general dental practitioner. The public dental officer, however, still remains under the control of the Medical Officer of Health—the chief officer of the Health and Education Departments of the Health Authority. This is contrary to the best interests of the public and the service, and it is considered that as a first principle the public dental officer should be placed on an equal footing with his confrères in the general dental service.

Dentistry and the Fuel Crisis

Since March 1 it has been illegal to use electricity for domestic purposes between the hours of 9 a.m. and 12 noon and between 2 p.m. and 4 p.m. In many areas during the first fortnight of the crisis, electricity was cut off at the power house during these periods. Therefore for five hours in the day some dentists were unable to use lights, apparatus or heaters operated by electricity. In other areas where, because of an essential industry in the circuit, electricity was supplied during the prohibited periods, dentists were given permission to use the current but were requested to be as economical as possible.—*Jour. of A.D.A.*

Health or Wealth?

A disturbing feature of the drive for increased production in industry is revealed in a report on Day Nurseries, published in the *British Medical Journal*. This report is based upon a particularly careful survey of over a thousand children carried out by one observer over a period of a year, and it includes repeated examinations of the children. The results show that the incidence of respiratory tract in-

fection was from two to eight times greater in the nursery children than among those living at home, and that a significantly higher incidence of specific infectious fevers occurred among the nursery children. Most significant of all, perhaps, is the observation that among the children under the age of two years the average weight was considerably less than that of children living at home and that their general condition was inferior.

These figures may not be surprising to paediatricians but they do seem to emphasize the possible dangers involved in the present demand for women, both single and married, to return to industry. Exports are undoubtedly essential to the survival of the country, but the question is now being asked as to whether the health of the future citizens of the country is a price that can be afforded for increased exports. Planning without forethought and knowledge is a two-edged weapon, and it is to be hoped that the planners of today will take cognizance of the writing on the wall.—
From London Letter in *Can. M. A. J.*

Training Facilities for Dental Technicians

The method of training dental technicians recommended by the National Joint Council is one of apprenticeship supplemented with part-time instruction at technical colleges. The value of the work of the colleges is that courses can be arranged to ensure that the learners have a thorough and progressive training covering every branch of the craft. This is not always possible even in the best laboratories. It is essential, therefore, that employers should be aware of the desire of the colleges to assist and should know what courses are already available. At present there are only a few centres where classes are in existence but efforts are being made to extend the facilities to other districts.—*Br. D. Jour.*

IRELAND

The Ratio of Dentists

In his inaugural address as President of the Irish Dental Association, Mr. H. J. Wright drew attention to the fact that in Ireland there was only one dentist to every 6,000 of the

population. The ratio of dentists to population in any country is influenced by many factors. Chief among these are the dental state of the people, their general level of income, education, and the appreciation, or the lack of it, by the public authorities of the importance of dental health. Opinions will differ as to relative importance of each of these factors and it is probable that the last is but a reflection of economic conditions and the standard of education throughout the country. It is, nevertheless, the case that an increase in the effective demand for dental service can be stimulated by wise expenditure on the part of public authorities more rapidly than in any other way.—*Br. D. Jour.*

AUSTRALIA

Our Australian Letter

(From our Australian Correspondent)

DEAR DOCTOR:

A matter which I believe would be of interest to Canadian dentists, and which certainly was of grave importance to us in New South Wales has been negotiated successfully.

When I say successfully some qualification is needed to the extent of saying for the time being.

For some time since the close of World War II organized dental mechanics have been campaigning for extension of their rights and activities, and their efforts culminated in a concerted attempt, supported by several labour unions, to influence the State Government to amend the Dental Act to the extent of permitting them the right to effect direct contractual relations with the public in the supply of full dentures.

Their efforts were intensified extremely at the close of 1946 and the beginning of 1947. With the State elections close at hand considerable organization was undertaken by the Honorary Officers of the State Branch of the Australian Dental Association to combat this serious menace.

The efforts of the Association Officers were entirely successful and the Minister for Health was able to announce that his cabinet had rejected the proposals of the dental mechanics.

Since this statement was received the State elections were held and the Labour Govern-

ment was returned to office with a slightly reduced majority. It is to be hoped that the new Government does not accede to any further representations the dental mechanics may proffer and reduce the excellent protective mechanism provided by the Dental Act and enjoyed by the public.

Within the Federal sphere there is, of course, planning being undertaken for a wider broadening of medical services under the mandate received from the people at the last referendum dealing with increased social services.

This, of course, is moving inexorably, though slowly, forward and despite the pious hopes of some dentists, that it may not occur in their time is a project which will demand close attention so that the profession here in Australia will guide it rather than be guided by it.

As developments arise I will send information forward.

With very kind regards to all our Canadian colleagues.

ROBERT HARRIS

SOUTH AFRICA

New Dental Industry

A new dental industry is being opened in Johannesburg to be devoted to a general laboratory service in all branches of dental prosthesis.

This industry will undertake for the first time in the history of South Africa the manufacture of artificial teeth. The finest and most modern scientific equipment, under licence from a well-known American company, has been installed, and the manufacture will be under the guidance of this company.

All research and development of modern techniques will be handled by the licensee, aided by the findings of the leading American research organizations.

GENERAL NEWS

Western Canada Convention

The joint Western Canada Dental Society and British Columbia Dental Association Convention was held this year in one of the most picturesque spots in the world, Banff, Alberta, in the heart of the Rockies. Although at this time of the year the weather is not dependable in the mountains, the weatherman did his best for us and we had three days of perfect weather.

There were 373 dentists registered accompanied by 283 ladies. The setting was perfect; the beautiful Banff Springs Hotel set among the majestic Rocky Mountains supplied the inspiration.

The location of the convention made it possible to secure top-notch clinicians. Dr. Reid O. Dingman of Ann Arbor, Mich., spoke on Oral Surgery for the General Practitioner; his lectures progressed from the simple case to the more difficult, and his splendid pictures made it easy and very interesting to follow.

Dr. Wm. Roy Eberle of Chicago, Ill., spoke on Mucostatic Impression Technique and the Fundamentals of Articulation. These lectures were very informative and were well attended.

Dr. John Kuratli of Portland, Oregon, spoke on Fundamentals in the Construction of Fixed Restorations. Dr. Kuratli also put on a table clinic, both his lecture and clinic being excellent.

Dr. V. M. Lloyd, President of the Western Canada Dental Society, presided at the opening luncheon, and Dr. J. A. Chambers, President of the British Columbia Dental Association, presided at the Saturday luncheon. Lieut.-Col. C. Child welcomed the convention to Banff, and the address at the opening luncheon was given by Mr. Dan McCowan, a Banff naturalist. Mr. McCowan has lectured all over this continent and is a very pleasing speaker. At the Saturday luncheon Dr. Harold Hillenbrand, General Secretary of the American Dental Association, was the main speaker. He stressed Preventive Dentistry and compared the small amount that is earmarked for Dental Research as compared to that put aside for Medical Research.

The table clinics too, were outstanding; they were given by Drs. Roy F. West, W. Scott Hamilton, John W. Clay, Geo. A. Ellsperman, J. C. Foote, R. H. Colbourne, H. M. Cline,

Wm. Miller, Kirk Oviatt, W. K. Sproule, R. J. Stewart, D. J. Sutherland, D. J. McLean, F. J. Hoelscher, J. Gordon Elsey, Roland Bird, Wm. F. MacKenzie, D. W. McCord, W. J. Riley, A. W. Myles, Lloyd Jacobson, Wm. Orobko, R. R. McIntyre, John W. Neilson, C. S. McLeod, S. W. Fraser, W. Fraser Smith, J. M. Grahame, R. A. McEwen, J. S. Bricker, A. J. Garesche.

As the ladies registered they were given a specially imported Staffordshire broach to be worn as identification; these were very pretty indeed and were much appreciated. The ladies were entertained at tea, and one whole day was spent in a trip to Lake Louise in sight-seeing buses, points of interest being pointed out by the drivers. Lunch was served at the Lake Louise Chateau. It was a most enjoyable day.

That grand old gentleman from Victoria, Dr. A. J. Garesche, was with us with his display of old dental instruments; his collection created much interest both with the dentists and with the newspaper reporters.

Dr. Geo. G. Ingham flew his private plane from Amarillo, Texas, landing at Calgary from where he was piloted to Banff.

The Banquet on Saturday evening was picturesque with the Mountains visible from any part of the dining room. Entertainment was supplied by a troupe of musicians and dancers from Calgary, after which a dance was held in the ballroom.

S. H. CORBEN, Secretary, W.C.D.S.

University of Minnesota News "Students and Assistants"

An experiment I should like to see attempted is the training of dental students to use auxiliary aids. It is my understanding that the State Dental Association intends to make a formal request that the School of Dentistry train dental assistants. Personally, I should like very much to try it and to go one step further, to teach the assistant how to work with the dental student as a team. Klein's study indicates that through the intelligent employment of dental assistants, dentists can operate more effectively and can increase their service to the community 25 to 50 per cent with considerable saving of their own time and nervous energy. From figures in the last

U. S. Census, it is disclosed that only 43.7 per cent of the dentists employ assistants, and I heard or read some place recently that only 50 per cent of the dentists of this State even want an assistant. When one recognizes the need for dental services and realizes that with efficient assistance his services can be increased 50 per cent, why doesn't every dentist use an assistant? Perhaps the answer lies in the fact that he was not trained to use one, and he probably doesn't want to disturb his tranquillity and continues to do his work alone.

This much and more is being done successfully in Meharry Dental School for coloured students. If they can do it, why should Minnesota hesitate? They not only teach the undergraduate student to work with an assistant but they train him to operate sitting on a stool. He uses technicians and directs the laboratory work for the cases he is making, which is done by technicians who are also receiving their training.

W.H.C. in *N. West Dent.*

Rising Construction Costs in U.S.A.

"Perhaps the outstanding single fact which emerged from the twenty-fourth annual meeting of the New England Hospital Assembly meeting, being emphasized in a number of different ways, was that construction costs have gone so high that building has just about been halted, to await a reduction to more reasonable levels. One speaker mentioned a new high cost per bed, \$20,000. Lewis J. Sarvis, the architect who has done most of the work connected with hospitals built by the Kellogg Foundation in Michigan, said that the cost per cubic foot has reached \$1.20 and is still rising, and others spoke of this figure having hit \$1.50, as compared with 72 cents in the 'Twenties', 33 cents at the bottom of that period, and 60 cents and upward during the early 'Forties'."

"Attendance Breaks All Records," Hospital Management 63:32 April, 1947 per *Public Health Economics*.

World Health Organization

Seven nations have ratified the Constitution of the World Health Organization, according to a report from the W.H.O. Interim Commission. Two of the seven nations—China and

the United Kingdom—became parties to the Constitution by signature without reservation when the instrument was established July 22, 1946. Other nations to ratify include the following in order of their approvals: Canada, Iran, New Zealand, Syria, and Liberia.

Under the terms of the Constitution 26 members of the United Nations must ratify the instrument before it comes into force, and the W.H.O. becomes a specialized agency of the United Nations.

"Seven Nations Have Ratified W.H.O. Constitution," *Connecticut State Medical J.* 11:367 May, 1947 per Public Health Economics.

The Present Status of Oral Surgery as a Specialty

by DOUGLAS B. PARKER, M.D., D.D.S.,
New York

Condensed from Jour. of Oral Surgery

In 1944 the Massachusetts General Hospital outlined the scope of the specialty. That institution declared the following to be definite oral surgical operations:

"Extraction of teeth or extraction with alveoloplasty.

Odontectomy (excision of impacted teeth).

Treatment, incision and drainage in cellulitis.

Treatment of sublingual, submandibular and submaxillary abscess when of dental origin.

Reduction of fractures of upper and lower jaws including the treatment of lacerations of the face.

• Treatment of osteomyelitis of upper and lower jaws.

Arthroplasty and osteo-arthrotomy for ankylosis of the mandibular joint.

Osteotomy for congenital and acquired deformities of the jaw.

Excision of bone cysts and local tumours of the upper and lower jaws when referred from the Tumour Clinic.

Treatment of diseases of the soft tissues of the mouth.

Excision of abnormal fraenum of the lip and tongue.

Excision of cysts of the mucous glands and cysts and stones of the salivary glands."

In discussing the present status of the specialty the author states, "There is a distinct place for the dentist who is adequately trained

in applied basic medical sciences and in oral surgery. There are no short cuts to such training. It must be based on training relatively equivalent to that required by the other medical specialties. While a medical degree in addition to the dental degree is very useful and gives considerable prestige to the possessor, it is not the essential factor. Hospital training is essential as well as fundamental dental training in addition to an adequate background in applied basic medical sciences. Training and ability as well as certification by a board made up of outstanding specialists in America are the stepping stones to recognition.

Joseph Volker to Succeed Basil Bibby as Tufts Dean

Joseph F. Volker, clinical professor of dentistry and director of the Rice Dental Infirmary, Tufts College Dental School, has been appointed dean of the Dental School, effective next September.

Dr. Volker succeeds Basil G. Bibby, who recently resigned his post as dean to become director of the Eastman Dental Dispensary, Rochester, N.Y. Dr. Volker is the youngest man ever to serve as dean of the Tufts College Dental School. He is widely known for his research on the causes of dental caries.

American Academy of Dental Medicine Honours Dean Wright

The American Academy of Dental Medicine at its first annual meeting in June, through its outgoing President, Dr. Samuel Charles Miller, awarded an Honorary Membership to Dr. Walter Henry Wright, Dean of the New York University College of Dentistry. In his speech of acceptance, Dr. Wright urged the cooperation of dentists and physicians for the betterment of health service to the patient.

The new officers of the Academy for 1947-48 are: President, Dr. Sidney Sorrin; President-elect, Dr. J. Lewis Blass; Secretary, Dr. William M. Greenhut; Treasurer, Dr. George Bruns; Editor, Dr. Allan N. Arvins.

Many interesting clinics were presented at the meeting followed by a business session.

The Academy is planning a luncheon to be held Sunday, December 7, 1947, preceding the Greater New York Meeting.

LOUIS R. BURMAN

A.M.A. Establishes Health, Physical Fitness Project

The American Medical Association has established a health and physical fitness project in its Bureau of Health Education, to be carried on under the supervision of the Committee on Health and Physical Fitness.

The project will include the health and fitness problems of the pre-school child, the school child, the college student, the rural and urban adult and the industrial worker. Studies will be made of health programs already in use, and two consultants will be made available to boards of health education.—*Jour. A.D.A.*

Public Health in U.S.A.

SHORTAGE OF PERSONNEL

"The public health program of the United States has made an astounding record during the past fifty years. Yet disquieting news comes from the front. Boards of health and health officers are clamouring for more workers; but instead of new recruits they face in many instances serious depletion of their present staffs.

"The reason for this is simple and obvious. It lies in the fact that while the cost of living and the income of manual workers is going up, the salaries of professional workers have remained static. They are not in this business for money. They are in it because they love their work. They will stand the situation as long as they can. Yet they have their own future and often that of their families to consider; and in many cases they are ultimately forced to seek some more remunerative vocation than public health.

"The number of applications for these positions is roughly one for each five openings (on January 31 last, 157 candidates for jobs and 738 vacancies). In the case of physicians, the ratio is one applicant for nine positions.

"The only solution of this problem is to reclassify our public health positions so that they will provide sufficient salaries to attract and hold competent professional workers. Just what these salaries should be in an individual city or state is a matter for local decision. All in all, it would seem probable that most states and cities will need an average of at least 20 per cent increase in salaries if they are to hold their present workers and attract new ones who are competent. In many communities the rate of increase should be much greater. In the case

of state health departments, the time to act is now.

"Are Our Health Defences Crumbling?" American J. of Public Health 37:455 April, 1947 per Public Health Economics.

Inter-American Congress in Buenos Aires Postponed

The Executive Council of the *Federacion Odontologica Latino Americana* has announced the temporary postponement of the Fifth Latin American Congress that was to have been held in October in Buenos Aires.

Juan Ubaldo Carrea, president of the federation, expressed the hope that plans may be renewed in 1948 to hold a joint Inter-American Congress with the co-operation of the American Dental Association and the Canadian Dental Association.

Prosthetic Dental Service

Formation of a unified national organization of dental laboratory owners, to which all ethical dental laboratory owners in the nation would be eligible for membership, was recommended at a national conference conducted in Chicago, June 13 to 15, by the Prosthetic Dental Service Committee of the American Dental Association.

Delegates unanimously approved a declaration that the regulation of dental laboratories and dental laboratory technicians is "of concern to the dental profession."

They also adopted a general recommendation that no legislation for the regulation and licensure of dental laboratories and dental laboratory technicians be sponsored by state dental societies at the present time.

The Conference adopted the following resolutions relating to the education of dental laboratory technicians:

1. That the basic training of dental laboratory technicians should be conducted under the auspices of an accredited dental school.
2. That the requirements for the accrediting of courses for the training of dental laboratory technicians established by the Council on Dental Education should be endorsed.
3. That the Council on Dental Education be urged to continue its study of vocational schools established upon a non-profit basis, above the secondary school level, by respon-

sible agencies for the training of dental laboratory technicians with a view to the possible accreditation of such schools.

4. That the Prosthetic Dental Service Committee of the American Dental Association discourage the multiplication of proprietary schools for the training of dental laboratory technicians.

5. That the Prosthetic Dental Service Committee of the American Dental Association promote relationships between the dental schools, the laboratories, and the profession, leading to the employment of the graduates in dental technology with opportunity for added experience and for prompt advancement.

6. That the requirements for the accreditation of a laboratory should include a discovery of the attitude and purpose of the laboratory in the on-the-job training of dental laboratory technicians and a study of the opportunities being offered for effective training.

7. That the state Prosthetic Dental Service Committees cooperate with present dental laboratory technicians in making available further instruction for those who may desire it.

8. That the training of dental laboratory technicians at the secondary school level be discouraged.

The following recommendations on the organization of dental laboratory owners and technicians were adopted:

1. That state and local dental societies be requested to extend invitations to dental laboratory owners and dental laboratory technicians to attend clinical sessions, which do not include operative procedures, of state and local dental society meetings, in such manner and to whom the society may determine.

2. That the prosthetic dental service committee give study to and prepare definitions of master technician, and junior technician and other classifications deemed desirable in order that this information may be available in future discussions with laboratory owners and technicians.

3. In view of the confused picture with reference to the formation of a national dental laboratory organization it is moved that this conference should give all encouragement at the present time to the formation and functioning of state dental laboratory associations at state levels.

4. It is recommended that a challenge again

be issued to the dental laboratory owners of the United States to consummate one national organization, which will be representative of the ethical dental laboratories of the nation, to which all ethical dental laboratory owners will be eligible for membership, such organization to have a structure similar to that of the American Dental Association.

It is further recommended that until such time as but one national organization is created and satisfies the requirements of the American Dental Association, no official recognition be given to any national group of laboratory owners.

Endorses Health Bill

A general endorsement of the objectives of the Taft-Smith-Ball-Donnel national health bill has been made by a spokesman for the American Dental Association.

Dr. Carl O. Flagstad, of Minneapolis, Minn., chairman of the A.D.A.'s legislative committee, told the Senate Committee on Labour and Public Welfare that the dental profession favours federal grants-in-aid to the states for operation of programs designed to improve the dental health of the people, particularly children.

He suggested, however, several changes in the over-all health bill which proposes to allocate \$1,000,000 for a nation-wide survey of dental needs of the population plus graduated annual appropriations of from 8 to 20 million dollars over a five year period for dental examinations of all public and non-public school children.

The bill also authorizes the states to provide necessary dental care for school children and other individuals and families unable to pay the whole cost of such care.

Funds should also be made available for programs of dental health education of both children and adults, Dr. Flagstad said. He said that the entire program would be "more effective" if efforts are made to motivate people to take care of their teeth and their children's teeth through dental health education programs.

Dr. Flagstad praised provisions calling for the establishment of a national dental research institute as one of the "most important" features of the bill.

In endorsing general provisions of the Taft bill, Dr. Flagstad reiterated the dental association's opposition to compulsory health insurance.

Dental Caries in Postwar Italy

Italian children whose war-time diets contained only a negligible amount of refined sugar have from two to seven times less dental decay than American children of similar age groupings, the *Journal of the American Dental Association* reports.

Drs. Isaac Schour and Maury Massler, reported on dental examinations of 3,905 persons in four Italian cities following the war.

More than half, 53.4 per cent, of Italian children 11 to 15 years of age were found to have caries-free teeth, a condition found in only one out of ten United States children of the same age.

An even greater ratio was reported for

the age group of 16 to 20 years. For the most part, the Italian people were found to be malnourished.

Drs. Schour and Massler reported that the Italian diet consisted predominantly of carbohydrates such as spaghetti, macaroni and bread. They pointed out, however, that only a small amount of refined carbohydrates was included, adding:

"This fact may be the decisive factor in explaining the low incidence of (dental) caries. Our findings thus seem to confirm the contention . . . that many people may eat freely of starchy foods and yet remain relatively free from caries, provided the intake of refined sugar is low."

IN MEMORIAM

Samuel Marsh Richardson, at the age of 66 died at his home in Belmore on July 15.

Dr. Richardson was a member of the staff of the Royal College of Dental Surgeons and then the Faculty of Dentistry, University of Toronto, which succeeded it, from 1919 to June 13th, 1947, when he retired. He was associate professor of Radiography.

Previous to studying dentistry, he was employed in forestry work in the United States. In 1919 he graduated from the Royal College of Dental Surgeons of Ontario at the age of 38. As well as keeping up a part time practice from 1919 to 1925 he was also a lecturer and demonstrator in dental anatomy, organic chemistry, operative dentistry and clinical dentistry successively. In 1928 he became a lecturer and demonstrator in radiography, eventually becoming an associate professor.

As a result of his years of research at the University, he had gathered considerable material for a text book on radiography which he was preparing at the time of his death.

Dr. Richardson was a keen sportsman, and in his earlier years played baseball, soccer, and hockey, performing for a semi-professional team at Sault Ste. Marie. At Quebec, where he was manager of the

Montmorency Lumber Company, he won the junior curling championship in 1909. He was also keenly interested in fishing.

He is survived by his widow, the former Meatha Hugill, one son Gerald, and two grandchildren.

Charles Sutton, of Toronto, Ontario, aged 70, died suddenly at his home, July 21.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1902, and had been in private practice ever since. He was an ardent golfer and had been a member of Lakeview Golf Club for many years. He was a member of the United Church.

Dr. Sutton is survived by his widow, three sisters, and a brother.

Milo Hellman, of New York City, aged 75, widely known orthodontist and anthropologist died May 11. He had retired from the practice of orthodontics in 1942 to devote himself solely to teaching and research.

William Boyd Leatherdale, of Coldwater, Ontario, died on April 26. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1913. He was dental inspector from Medate Township, and a former member of the Coldwater Council and Board of Education.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

MONTREAL, AOUT 1946

NO 8

Restaurations d'Amalgame dans l'Armée: Evaluation et Analyse*

par LEO H. ROPER, D.D.S., New York

traduit par Louis Bernier, B.A., D.D.S., L.C.D.

DEPUIS le 7 décembre 1941 jusqu'au 1er septembre 1945, les dentistes de l'armée ont fait 68,170,326 obturations permanentes. Ces obturations étaient, pour la majeure partie, des amalgames. Jamais encore, dans l'histoire de la dentisterie, l'amalgame n'a été soumis à une épreuve aussi étendue.

L'expérience de l'armée a prouvé que les mêmes lacunes se répètent régulièrement dans les obturations d'amalgame. Celles-ci sont causées par les procédés défectueux que l'on pourrait facilement éliminer si l'on s'intéressait davantage aux meilleurs amalgames. Et ce fait a été prouvé par plus d'une autorité dans l'armée.

En pratique civile, un dentiste voit le travail de ses collègues assez rarement. Suivant les exigences réglementaires des hôpitaux militaires, où j'étais assigné, le travail de chaque patient devait être examiné par un officier proposé à cet office ou par un confrère dentiste. Ce voisinage et cette étroite collaboration fournirent aux dentistes militaires l'occasion unique de contrôler et d'évaluer mutuellement leur travail. C'est ainsi que j'eus le privilège d'examiner des patients traités par

les dentistes d'à peu près toutes les écoles dentaires des états-Unis.

Un travail soutenu dans les amalgames, l'observation constante et la discussion libre ne pouvaient faire autrement que de contribuer à l'amélioration de la technique de chaque dentiste en particulier. De fait, les plus intéressés s'affranchirent de procédés défectueux et, dans un laps de temps bien court, ils produisirent des obturations assez parfaites pour satisfaire le plus minutieux examen. (Fig. 1).

Ces dentistes avaient apporté de la pratique civile les erreurs de technique qu'ils éliminèrent au cours de la pratique militaire. Les difficultés rencontrées dans leurs bureaux particuliers se manifestèrent inévitablement dans les cliniques militaires. Réquisitionnés par l'armée dans les quatre coins du pays, ils étaient ordinairement consciencieux et compétents mais sans intérêt et sans entraînement technique. Ils ne possédaient aucun instrument spécial. Ce qu'ils accomplirent pour améliorer leurs procédés peut être fait par n'importe quel dentiste qui veut perfectionner sa technique dans l'emploi de l'amalgame.

*Article Reproduit du Journal de l'Association Dentaire Américaine, livraison du 1er Avril 1947, pp. 443-450.

Cet article n'a pas pour but de proposer quelque nouvelle méthode compliquée et fantaisiste mais bien plutôt d'énumérer les lacunes dominantes que l'on rencontre dans les obturations d'amalgame et de

démontrer comment le dentiste militaire moyen a réussi à les éliminer.

La pratique militaire a prouvé que l'amalgame d'argent bien manipulé donne une obturation toute aussi parfaite que

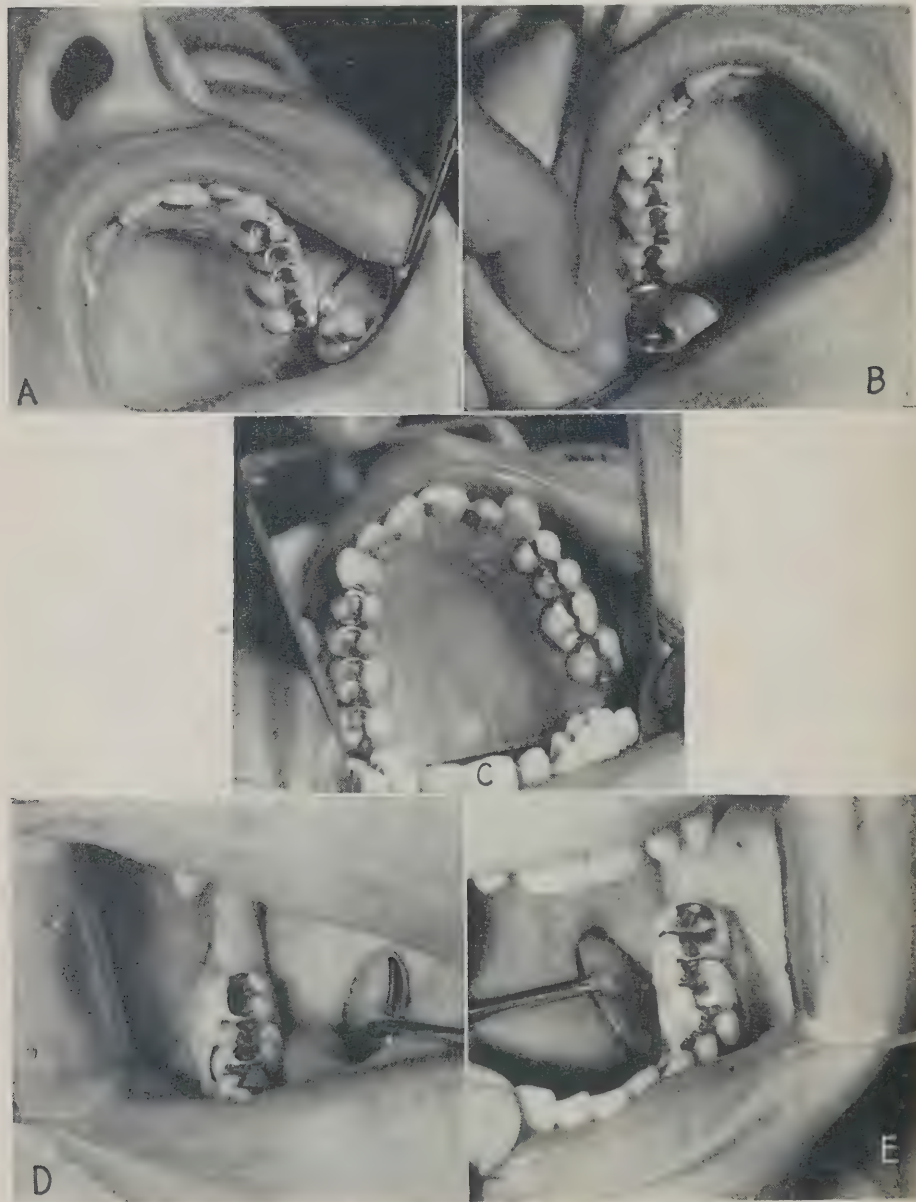


FIG. 1

Restaurations postérieures avec amalgame. A noter: l'amalgame, classe 3, sur la face distale de la cuspide postérieure droite, photo C.

n'importe quel autre matériel obturateur sur le marché. Inséré avec les soins nécessaires, il n'a pas de rival. Il est plus que temps d'écarter la notion courante que l'amalgame est un substitut pour l'incrustation en or.

PREPARATION DE LA CAVITE

Comme dans toute autre procédure opératoire, la phase la plus importante est certes la préparation de la cavité.

Classe 1: Surfaces occlusales: Si l'on surveillait attentivement toutes les mauvaises restaurations dentaires d'amalgame, on constaterait que la cause la plus fréquente est qu'on n'a pas ouvert la cavité assez largement. Le dentiste a souvent un trop grand respect du tissu en cause. Aussi louable que soit cette attitude, la logique en est douteuse. Une dent cariée est une dent malade et sera vouée à l'extraction si elle n'est pas coupée, ciselée et obturée. Mais on s'assurera d'une bonne obturation qui protégera la dent contre la carie future en autant qu'on aura enlevé assez de substance dentaire.

Le traitement est plus facile si la cavité est assez largement ouverte. L'accès facile est la condition essentielle. Puisque la carie envahit souvent la dentine, on ne pourra l'extirper complètement que si la cavité est ouverte largement. Tenter l'excavation au-dessous des cuspes est un procédé dangereux dont le résultat est souvent peu satisfaisant. Le carie tend, dans bien des cas, à s'infiltrer dans les coins et replis et on peut l'y repérer en inondant la cavité d'une solution aqueuse de nitrate d'argent après un complet nettoyage. La carie cachée sous les cuspes deviendra noire tandis que la dentine saine et l'émail ne seront pas affectés par la solution. La dentine secondaire peut devenir jaunâtre mais jamais brune, ni noire. On voit trop souvent des obturations profondes pratiquées dans une cavité minuscule sur l'émail. Comme résultat inévitable, la dent noircit sous l'effet de la carie secondaire envahissant la couronne et souvent même la pulpe. Et c'est seulement après un examen complet de la cavité que l'on peut se convaincre de sa propriété absolue.

Dans une cavité limitée, deux problèmes additionnels se posent: celui de placer la base de ciment convenablement et de condenser l'amalgame. Il reste encore le ciselage et le polissage de l'obturation. Les changements attribués à l'amalgame après fixation ne sont pas causés bien souvent par des phénomènes physiques ou chimiques mais bien plutôt par une préparation défectueuse.

Tous, nous avons vu de ces obturations guère plus larges qu'une fraise 558. Il n'est pas de fouloir assez petit pour bien condenser l'amalgame dans une pareille cavité. Il en résulte nécessairement une obturation poreuse qui bientôt laisse des joints. Et comme ces obturations étroites conduisent souvent à des fissures, les bords très minces sont inévitables. Plus tard, ces extensions se brisent emportant une partie de l'amalgame. L'amalgame brisé est trop souvent attribué à la contraction de l'alliage.

L'erreur la plus fréquemment commise dans l'obturation des classes I, donc, est le manque d'accès. On doit tenir compte des préceptes de Black. Les parois devraient être parallèles et élargis de façon à assurer une complète visibilité.

Classe 2: Surfaces proximales des prémolaires et des molaires: Ici encore, le plus souvent la crainte d'enlever trop de substance dentaire a été responsable des faillites. Aucune méthode ou raccourci susceptibles de réussir n'ont encore été trouvés pour remplacer la méthode fondamentale de Black: l'extension des cavités comme prévention. La surface proximale doit dépasser le point de contact. Ce précepte est si élémentaire qu'il n'est pas besoin d'en parler. Mais souvent pour épargner la structure dentaire ou pour sauver du temps on a négligé ces principes. Le résultat fut non seulement la carie secondaire des surfaces difficiles à atteindre en lavant les dents, mais, souvent, la carie se propagea à la dent voisine.

Une autre source de difficulté dans les obturations proximo-occlusales en amalgame fut le peu de rétention possible sur le plan occlusal. Dans les cas où la dent voisine manque, la rétention est nécessaire aussi dans la section proximale de la cavité. Si la rétention et la protection

pendant la mastication ont disparu avec la dent extraite, il devient essentiel de donner à la préparation sa rétention propre. Les obturations qui n'ont pas cette rétention se désagrègent et la partie proximale de l'obturation tombe.

Si la rétention est suffisante, on n'aura plus besoin de laisser durcir l'amalgame avant d'enlever la matrice de crainte de le briser. On a éloigné tout danger si, dans la préparation, on a créé une rétention suffisante. Plus encore, il est préférable d'enlever la matrice immédiatement.

Il existe encore quelque confusion à savoir où finit le plan occlusal proximogingival. On n'obtient pas toujours de bons résultats si on veut terminer cette obturation sous la gencive spécialement où il y a tendance, pour la gencive, à la régression. On attaque souvent le ciment en voulant entendre une cavité sous la gencive. Le dentiste doit alors restaurer cette partie du plancher proximal qui est habituellement concave et conséquemment exécuter une opération assez délicate, qui risque d'occasionner une bavure d'amalgame ou de la carie secondaire. Le gradin proximogingival doit dépasser le point de contact mais il n'est pas nécessaire qu'il se rende sous la gencive ou jusqu'à celle-ci. Enfin, lorsqu'on a satisfait tous les préceptes de la bonne préparation d'une cavité, les parties tranchantes doivent être aplanies et non bisautées. On peut faire ceci avec des ciseaux ou avec des disques de papier sablé très fin. Si l'on néglige ces détails, il résultera que l'amalgame fini n'adhérera pas à ces parties aiguës et les laissera exposées.

Classe 3. Classe 4: Surfaces proximales des dents antérieures:—Surfaces proximales des dents antérieures avec l'angle incisif compris: Ces cavités sont habituellement obturées de silicates ou d'or. Mais le synthétique n'est pas un matériel très durable et l'or a aussi ses inconvénients. On a employé l'amalgame avec succès dans des restaurations distales de canines et même de latérales. Dans les cavités de classe 3, on peut facilement avoir accès en ouvrant assez largement linguo-distalement de manière à pouvoir placer une matrice retenue en place par

un coin de bois ou un porte-matrice. Le dessus de la bande doit être coupé à la face linguale pour donner accès dans la cavité si l'on se sert d'un porte-matrice.

Dans les cavités de classe 4, sur une canine, on peut faire une belle restauration, bonne et durable, avec amalgame. On a soulevé l'objection que l'amalgame décolore la dent. Les sels d'argent sont supposés pénétrer les canalicules dentinaires. Cependant, si les bords ne sont pas trop minces et si le ciment est inséré avec soin, l'amalgame bien condensé, bien inséré et poli, on obtient une restauration esthétique qui ne décolorera pas plus une dent antérieure que postérieure. Si l'on craint encore de décolorer la dent, on peut badigeonner la cavité de vernis protecteur qui empêchera toute pénétration des sels d'argent dans les canalicules.

Il est évident qu'une bonne préparation de la cavité est aussi essentielle pour celle-ci que pour les autres. De plus une matrice tenue solidement en place est nécessaire. Il faut souvent faire preuve d'ingéniosité et de dextérité pour avoir une bonne condensation de l'amalgame. Parfois faudra-t-il appliquer la matrice du côté lingual plutôt que buccal. Certaines de ces obturations paraissent tout aussi bien que des incrustations, étant donné que le côté distal de la canine ne paraît pas ou presque pas. De plus, toutes les faces sont hermétiquement fermées non avec du ciment mais avec du métal.

Classe 5. Cavités du tiers-gingival:—Dans cette classe ainsi que dans les classes 3 et 4 le côté esthétique est important et l'emploi de l'amalgame est limité à la partie des dents cachée par la lèvre. Si le corps de la cavité est au dessus de cette ligne, l'amalgame est un matériel de choix. La facilité avec laquelle il s'insère, le fait qu'il ne décolore pas et ne se lave pas et qu'il scelle hermétiquement la cavité range l'amalgame parmi les meilleurs matériaux pour ces cavités. L'insuccès dans les restaurations est dû aux mêmes causes que dans les cavités de classe 1 ou 2. Parce que la cavité n'était pas assez largement ouverte et que la carie n'était pas toute enlevée, le ciment était mal in-

séré et les bords n'étaient pas assez condensés.

Une cavité bien préparée est donc de première nécessité pour réussir une obturation en amalgame. Ainsi la plus grande source de difficulté disparaît. Il reste, cependant, certaines circonstances qui pourraient expliquer le piètre succès d'obturations.

VERNIS PROTECTEUR

On a exprimé quelque doute sur la nécessité d'une base de ciment pour réduire le choc thermique. Il est vrai que les changements thermiques ne sont pas seuls coupables de l'irritation produite. L'expérience, de l'armée, après l'examen d'un nombre considérable de bouches, tend à affirmer que le vernis protecteur est nécessaire. Je le crois important surtout pour servir de sceau aux canalicules dentinaires. La dentine fraîchement fraisée s'irrite parce qu'elle est sujette à la compression. Tout dentiste a déjà observé cette caractéristique. Une cavité scellée avec de la gutta-percha sera plus sensible qu'elle ne l'était immédiatement après la préparation. Ce ne peut être ni la conductivité ni une réaction chimique de la gutta-percha qui produit cette irritation. Ce doit être la compression que la gutta-percha exerce sur les canalicules pendant la mastication. Cette réaction n'a pas lieu quand la dentine a été recouverte d'une base de ciment ou quand la partie fraisée des canalicules a été cautérisée avec du nitrate d'argent ou bien enduite d'une couche de vernis.

Ces canalicules, fraîchement sectionnés dans une cavité profonde, réagissent défavorablement quand l'amalgame est introduit directement sur les extrémités nerveuses nouvellement exposées. Cette réaction était plus commune encore parmi les membres de l'aviation, surtout à des altitudes élevées où toute réaction physique est intensifiée. Plusieurs obturations, bien réussies par ailleurs, durent être enlevées à cause d'irritation à la dentine et, non seulement parce qu'on avait négligé d'employer la base de ciment, mais encore parce que, souvent, celle-ci ne couvrait pas entièrement la dentine

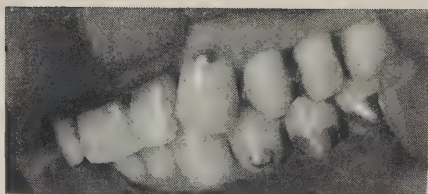


FIG. 2

Class 5. Amalgames. Les obturations inférieures furent mal condensées et mal insérées. On peut voir par l'apparence poreuse, un manque de fini, tandis que la canine supérieure droite est bien réussie.

sensible. La dentine était devenue tellement irritée que l'on devait lui donner un repos d'une couple de jours avant d'y replacer une nouvelle obturation. On utilisait alors l'oxide de zinc-eugénol. Quand toute sensibilité avait disparu on appliquait le ciment en ayant soin d'éliminer la pression sur les canalicules exposés pendant la condensation de l'amalgame. Les patients alors ne se plaignaient d'aucun malaise, même dans les chambres à haute pression qui simulaient les plus grands changements de la pression atmosphérique.

Chez les patients plus jeunes et parce que la chambre pulpaire est encore grande et que les cornes de la pulpe sont hautes sur la couronne, même une cavité peu profonde sera sensible si on ne scelle pas les canalicules. Dans ces cavités où on ne peut employer la base de ciment, on pourra obvier aux troubles futurs en enduisant la cavité de vernis ou de nitrate d'argent.

TRITURATION

Concernant la trituration, les instructions données dans les manuels et par les manufacturiers sont complètes. On obtiendra un amalgame bien malaxé en suivant ces modes d'emploi.

La trituration doit être complète. Plus les limailles sont grossières, plus on devra mettre de temps pour obtenir un amalgame lisse. Au début de la seconde Grande Guerre, les dépôts dentaires de l'armée fournissaient des alliages de marques et de grosseurs diverses. Pendant quelque temps, on y distribuait un alliage à limailles si grosses que partout on avait

du mal à obtenir un amalgame lisse. Après de multiples expériences, on s'aperçut que la trituration ne devenait complète qu'après trois minutes.

Un rapport de l'école dentaire de l'université d'Indiana² affirme qu'une plus longue trituration (3 minutes) donnera comme résultat, une obturation plus solide sans pour cela apporter de désavantages cliniques évidents après deux ans d'observation.

L'amalgame ne doit, en aucune façon, être contaminé. Et ceci comprend la phase de manipulation. Kornfeld³ a fait remarquer que personne encore a trouvé une bonne raison pour la trituration de l'amalgame dans la main. Il devrait être mélangé dans une serviette mais jamais dans la main. De même la salive joue un rôle dans la contamination. Un amalgame inséré dans une cavité humide ne peut jamais donner un résultat excellent ni protéger la cavité complètement.

INSERTION ET CONDENSATION

Une fois l'amalgame bien malaxé, on devrait l'insérer dans la cavité sans tarder. L'excès de mercure doit être amené à la surface et la cavité comblée. Ce surplus de mercure sera enlevé avant qu'il ne soit réabsorbé par l'amalgame. Le dentiste peut choisir d'exercer la pression avec la main ou avec un maillet automatique pour insérer et condenser son amalgame. L'une et l'autre méthodes ont obtenu de bons résultats.

Dans les classes 2, les bandes circulaires sont préférables aux bandes semi-circulaires. Les premières se fixent plus solidement et tiennent mieux en place pendant la condensation.

Le coin de bois interproximal ne peut être négligé sans résultats délétères. Il est absolument nécessaire à de bons joints gingivaux. Il y a, sur le marché, un nouveau porte-matrice à deux dimensions. Mais ce nouvel appareil n'enlève pas le besoin d'un coin dans la plupart des cas. Le coin, de plus, devient une aide précieuse contre l'hémorragie dans les cavités qui s'étendent plus bas qu'une gencive congestionnée et saignant aisément. L'em-

ploi d'une bande et d'un coin aideront à contrôler le flot sanguin et assureront une cavité sèche et stérile.

Les cavités dont les parois proximales étaient détruites en grande partie furent un problème pour plusieurs. Une bande trop tendue ne permettait pas l'insertion d'amalgame en quantité suffisante pour restaurer à la partie proximale de la cavité son contour normal. Ces obturations présentaient des surfaces bucco-proximales ou linguo-proximales aplaties. Il en résultait naturellement une cavité où les aliments s'accumulaient. On y remédia en détendant légèrement la bande après avoir rempli la partie gingivale de la surface proximale. La bande est ensuite relâchée à mesure que la partie proximale est obturée. On s'assure ainsi assez d'amalgame pour ciseler un contour normal. Le surplus est enlevé après avoir retiré la bande.

SCULPTURE ET POLISSAGE

Deux opérations, la sculpture et le polissage, ont été particulièrement négligées dans les obturations en amalgame et c'est ce qui explique les taches noires si disgracieuses que font les obturations. Personne ne songerait à cimenter une incrustation en or avant de l'avoir bien ciselée et polie. Trop de dentistes, hélas, se contentent de quelques coups de brunissoir sur une obturation en amalgame.

Si quelqu'un a été traité récemment pour une cavité obturée en amalgame, il se souviendra de l'étrange sensation éprouvée et de l'énorme différence qu'il remarqua après le ciselage et le polissage. Et, si le patient a plusieurs obturations, il est facile de concevoir tout le confort que ce simple service peut procurer. La différence dans l'aspect est si grande qu'elle vaut bien le temps qu'on y consacre.

On tiendra donc compte de ces quelques points au moment de finir un amalgame.

La condensation terminée, on doit commencer la sculpture immédiatement de sorte que l'excès de mercure puisse être retiré. Le reste de l'amalgame, convenablement et complètement condensé, est

assez ferme pour supporter un ciseau tranchant. L'amalgame devrait être attaqué hardiment et non simplement poli avec des instruments lisses ou émoussés. Tout surplus doit être enlevé. Les parois trop minces se briseront et causeront des cavités poreuses.

On ne doit pas sculpter au gré de la fantaisie. Les pas inclinés des cuspidés doivent guider le ciseau. Ceci non seulement restaure un contour normal mais évite un surplus d'amalgame.

Le point de contact idéal, ciselé comme dans du marbre, n'existe pas toujours dans toutes les bouches. Souvent, le plus normal est plus large ou plus plat. Dans ce cas, les contours de l'amalgame doivent en épouser les formes.

L'obturation du côté marginal causait souvent de la difficulté parce que ce point important de la structure était reconstruit trop haut et trop près de la dent adjacente. Ce qui élargissait trop le point de contact, ne laissait pas d'ouverture et causait l'accumulation d'aliments. Le côté marginal ne supportait pas la pression inaccoutumée produite durant la mastication et bientôt se brisait. On arrondira le côté marginal et on s'assurera d'un espace normal en passant une bande de soie ou un explorateur entre les dents au-dessus du point de contact. Un examen de l'anatomie de la dent démontrera graphiquement comment cette partie doit en être restaurée.

Dès que le ciselage occlusal est terminé, on doit enlever la bande et tailler les côtés gingival et proximal. On doit prendre soin de bien enlever le surplus d'amalgame des bords gingivaux. Si la bande et le coin sont solides, ce surplus ne sera pas considérable, mais il existera quand même. (Des radiographies occlusales prises après les opérations convaincraient du contraire toute personne qui croit que l'on peut toujours empêcher l'amalgame de s'infiltrer au delà de la bande.) Les instruments aigus peuvent encaver cette partie. Un bord légèrement arrondi est préférable. On peut l'obtenir facilement avec un explorateur no 23. Plus tard, on pourra réduire cet excès avec une bande de papier sablé.

En surveillant les points élevés de l'oc-

clusion, un mot d'avertissement est de mise. Souvent la dent opposée a des cuspes acérés et allongés dus à des cavités négligées depuis longtemps ou au manque d'abrasion naturelle. Plutôt que de détruire la forme du nouvel amalgame et créer une dépression où le cuspe s'articule, on pourrait la meuler sans pour cela causer de tort à la dent. On adoptera cette pratique plutôt que de couper de plus en plus à même l'amalgame pour libérer une cuspidé. Ce dernier procédé n'aurait comme résultat qu'une obturation affaiblie, du temps perdu et de l'énervement.

Le ciselage est complet quand toutes les stries et les pores ont disparu. Le polissage final ne devrait pas se faire avant les quarante-huit heures qui suivent l'insertion de l'amalgame. Si le travail a été bien fait jusque-là, un disque de papier sablé très fin, la pierre ponce avec brosse mouillée et de l'oxide de zinc en pâte donneront un fini luisant comme un miroir. L'obturation ne deviendra pas noire ni ne perdra son lustre. Elle paraîtra aussi bien que n'importe quelle incrustation et fera tout aussi bien, sinon mieux.

CONSEILS AU PATIENT

Le dernier point à ne pas oublier dans les obturations en amalgame, comme d'ailleurs, dans chaque phase d'un traitement dentaire, est de donner au patient quelques conseils sur les soins à apporter à ses dents par la suite. Aucune obturation ne durera longtemps à moins que le patient y mette du sien et prenne soin de sa bouche. Si les parties microscopiques de l'émail s'effritent et se carient quelle chance de succès auront les meilleurs efforts d'un dentiste?

On devra conseiller, en plus de la nécessité d'examen périodiques et de traitements prophylactiques, une méthode bien définie de brosser les dents. Le dentiste indiquera la méthode la plus apte à garder la bouche bien propre et les gencives saines. Cependant, il faudra non seulement dire ces choses au patient, mais lui enseigner comment se servir de sa brosse.

De plus, une forme quelconque de stimulation interdentaire devrait être recommandée. On offre plusieurs appareils sur

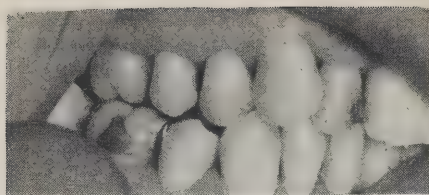


FIG. 3

Vue des dents et gencives après massages assidus. Espaces interdentaires très propres. Papilles gingivales poussées pour éliminer les poches pyorrhéiques. Couleur du tissu, bonne.

le marché et, ici encore, le dentiste recommandera les plus aptes à assurer la propreté des embrasures et des bords des obturations. Il serait futile d'espérer s'en remettre en ceci à l'action naturelle des gencives. La crête gingivale atteint sa hauteur normale dans trop peu de bouches pour que l'on se fie entièrement à cette protection. Il est donc nécessaire que le patient adulte ait recours à la stimulation artificielle et à des mesures prophylactiques.

SOMMAIRE ET CONCLUSIONS

La somme énorme de travail accompli dans l'armée avec l'amalgame durant la deuxième Grande Guerre et l'avantage qu'y trouvèrent plusieurs dentistes d'améliorer leur technique nous donnent un ex-

cellent moyen de réévaluer l'amalgame d'argent comme matériel obturateur.

Le retour des mêmes défauts dans les obturations d'amalgame nous fait réaliser que plus de soins consciencieux sont nécessaires.

Le fait que la plupart de ces défauts furent éliminés par plusieurs hommes de l'armée prouve que le dentiste intéressé peut produire plus d'obturations parfaites sans pour cela sacrifier beaucoup plus de temps et d'efforts.

Si l'on considère l'amalgame comme un matériel de choix et qu'on l'emploie avec jugement, il s'acquittera de ses fonctions esthétiques et autres aussi bien sinon mieux que tout autre matériel.

Comme restaurateur de dents cariées, l'amalgame a fait preuve d'excellentes qualités et tient la tête de la liste rivalisant même avec l'incrustation d'or.

—724, 5e avenue, New York.

BIBLIOGRAPHIE

- 1) Photographies fournies par le Surgeon General de l'Armée et prises par le Service de Photographie du Corps d'Aviation, à Eglin Field, Floride.
- 2) Phillips, R. W.; Boyd, D. A.; Healey, H. J. et Crawford, W. H.: "Clinical Observations on Amalgam with Known Physical Properties, Final Report". J.A.D.A. 32:325 (Mars 1er) 1945.
- 3) Kornfeld, Benjamin: "Successful Amalgam Restorations" T. D. Soc. (N.Y.), 11:59 (Mars-avril, 1945).

La terminologie du métier ne doit pas être employée qu'avec une extrême discrétion, et certains mots désagréables méritent d'être évités. Ne dites pas: "il faut arracher cette dent . . ." Arracher, le mot seul est douloureux, vous pouvez dire: "il faut l'enlever . . .", les gens comprendront tout aussi vite, et l'idée de déchirement leur sera moins cruellement présentée. Ne dites pas "plombage" comme trop de clients, mais obturation, ni "dentier" mais appareil ou prothèse. Si le mot "nettoyage" peut s'appliquer à un coup de brosse donné bâativement, le mot de "curettage" paraît plus propre à suggérer l'importance et la difficulté de l'intervention pratiquée sur une dent pyorrhéique par exemple.

—Les problèmes de la pratique quotidienne—FERNAND BROCHERE.



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.

397 est Boul. S.-Joseph, Montréal

Rapport du rédacteur de la section française au Bureau des Gouverneurs de l'Association Dentaire Canadienne*

M. le Président et MM. les Gouverneurs:

Il me fait plaisir—et cette tâche m'honore—de présenter au Bureau des Gouverneurs de notre Association le rapport annuel du rédacteur de la section française du Journal. Tout rapporteur doit, si je comprends bien le sens de ce mot:

- 1) revoir les projets et les suggestions, contenus dans le rapport de l'année passée, et entrevoir ce qui fut fait pour réaliser ce programme;
- 2) élaborer une ligne de conduite et faire des suggestions au Bureau afin de rendre le Journal de plus en plus adapté à sa mission.

L'an dernier, à l'occasion d'une réunion identique tenue à Toronto, ou il m'a été donné de constater le travail efficace de l'Association Dentaire Canadienne pour ses membres, je soulignais la pénurie de pages mises à la disposition de l'élément français du pays. Encore cette année, la rareté du papier nous a limité à douze pages. Ceux, qui connaissent la besogne de la publication et de la mise en page, comprendront les difficultés suscitées par un nombre fixe de pages, en face d'un amoncellement d'articles scientifiques intéressants et de nouvelles d'actualité, qui regardent la profession dentaire.

On me dit, toutefois, que nos éditeurs peuvent maintenant se procurer plus de papier et que notre chronique française peut prendre un peu d'élasticité. Ce changement soulage votre rédacteur et facilite son travail. Ces bornes rigides, qui étaient des cauchemars, sont enlevées et nous aurons dès maintenant plus de latitude et de liberté dans la publication de notre Journal.

A Toronto, nous vous exposons les ennuis découlant de l'uniliguisme

*Réunion tenue, à Digby, N.-E., du 20 au 24 juin 1947.

des nouvelles et des convocations émises par le Secrétariat de notre Association. Il est naturel que ces "Lettres aux Gouverneurs", par exemple, soient écrites en anglais seulement par des anglais. Mais cet état de choses cesse d'être normal quand ces avis et nouvelles doivent être traduits en français, avant d'être insérés dans la section française du Journal. En conséquence, cette littérature est toujours publiée avec un mois de retard sur la section anglaise. Le problème est le même pour l'annonce des réunions et plus spécialement du Congrès National annuel.

Le remède à ces déficiences, comme nous le disions, l'an dernier, serait l'embauchage, au Secrétariat de notre Association, d'une personne bilingue, qui traduirait en français les textes officiels pour les transmettre ensuite, en même temps, aux rédacteurs anglais et français pour qu'ils soient publiés simultanément. Cette mesure tiendrait les dentistes canadiens-français au courant des activités de leur Association et ferait connaître nos initiatives, à l'étranger, dans les pays d'Europe, où la langue française est en usage. En 1946, mon rapport annuel mentionnait la nécessité pour notre Journal de se mettre en rapport avec des publications du même genre, dans les régions de l'Europe, où le français est langue courante, comme la France, la Belgique, la Suisse, etc. Cette année, nous avons fait du travail dans ce domaine et déjà, un certain nombre de nos articles ont été reproduits dans ces revues européennes. Nous avons eu le plaisir, aussi, de lire des commentaires favorables sur la tenue de notre section. Il serait trop long d'appuyer sur les éloges de ces publications étrangères. Contentons-nous de souligner l'importance de ces relations internationales et du besoin de les augmenter, si possible. Nous projetons de posséder une liste complète de toutes les revues dentaires de langue française du monde pour établir des échanges avec celles-ci. Cette politique est de nature à favoriser une meilleure compréhension entre les peuples, parce que basée sur un commerce d'idées et une sympathie mutuelle. Une paix stable doit être le fruit de rapports plus sincères et d'appréciation plus grande. Ces principes, évidemment, doivent s'appliquer dans un domaine beaucoup plus vaste que celui de la profession dentaire, mais conviennent aussi aux échanges scientifiques internationaux.

Nous nous sommes mis en relation avec des revues dentaires sud-américaines, écrites en espagnol et en portugais. Les rédacteurs de ces publications, qui sont d'origine latine, comme nous, ont tous exprimés un désir sincère de nous connaître d'avantage. Ces échanges doivent être encouragés et nous nous proposons, encore cette année, de développer ces relations avec les pays étrangers au moyen de notre Journal.

L'année dernière, je mentionnais l'ignorance trop grande des dentistes canadiens-français en regard de leur organisation nationale, c.-à-d., l'Association Dentaire Canadienne. Ce manque d'intérêt est occasionné, il me semble, par le peu de renseignements qu'ils reçoivent au sujet du fonctionnement des différents comités de l'Association et des services rendus à la profession dentaire par cet organisme.

Nous avons tenté de favoriser la connaissance des bons offices de l'Association chez nos confrères. Nos efforts ont eu quelque résultat, puisque le Collège des Chirurgiens-Dentistes de la Province de Québec a pu augmenter la cotisation de ses membres à l'A.D.C.

Nous devons continuer cette éducation pour que les dentistes du Québec coopèrent pleinement à toutes nos activités.

Comme projet pour l'année qui vient, j'aimerais faire une suggestion quant à la date de parution de notre Journal. Le Journal est rendu chez nos membres au cours de la dernière moitié du mois. Il me semble que notre publication rendrait plus service à ses lecteurs, s'il était publié au début du mois, de façon à annoncer les événements de notre profession à une date plus avancée.

Il y aurait aussi quelques modifications à faire, quant à la forme de notre Journal. Mais je crois que ces améliorations peuvent être discutées, à meilleur escient, par le Comité de Publication, puisqu'il s'agit d'une nouvelle couverture, etc.

Je n'ai que des éloges à faire du support effectif, que m'ont accordé le gérant d'affaires, le rédacteur de la section anglaise et les éditeurs du Journal. Leur coopération et leurs conseils m'ont énormément aidé et m'encourageant à travailler à l'amélioration de notre publication mensuelle. Respectueusement soumis.

GÉRARD DE MONTIGNY.

Sommes souscrites au Mémorial de Guerre de l'A.D.C.

	Nombre des dentistes	Objectif	Sommes perçues
Ile du Prince-Edouard	28	\$ 50.	\$ 65.00
Nouvelle-Ecosse	180	325.	522.00
Nouveau-Brunswick	114	225.	655.30
Québec	1041	1900.	1506.00
Ontario	2081	3500.	2679.50
Manitoba	244	475.	500.00 versés par le Collège
Saskatchewan	195	350.	902.00
Alberta	264	425.	814.00
Colombie Anglaise	455	775.	500.00 versés par le Collège
	4602	\$8025.	\$8143.80 Intérêts 22.91 \$8166.71

CHEZ NOUS ET AILLEURS

La Société de Stomatologie de Québec

Le docteur Antonio Reny a été élu président de la Société de Stomatologie de Québec pour l'année 1947-1948. Les autres officiers sont: vice-président, le docteur Viger Plamondon; secrétaire-trésorier, le docteur Emile Bourdon, réélu pour un 24^e terme consécutif; assistant - secrétaire, le docteur Jules Hamel, réélu; bibliothécaire, le docteur René Huot, réélu.

Congrès de l'Association Dentaire de l'Est de l'Ontario

Le Congrès de l'Association Dentaire de l'Est de l'Ontario aura lieu au Chateau Laurier, à Ottawa, les 21, 22, 23 septembre. Les dentistes du Québec sont invités tout spécialement à assister à ces assises scientifiques. Le docteur Aimé Couture, 48, Rue Rideau, Ottawa; est secrétaire du Comité d'organisation de cette réunion.

Journée d'étude de la Société Dentaire de Montréal

La journée d'étude de la Société Dentaire de Montréal, tenue à l'hôtel Windsor de Montréal, a obtenu un succès remarquable. Environ 125 dentistes de la ville et des environs ont assisté aux cliniques des docteurs Grevatt, du New Jersey et Victorien Dubé, de Montréal. Le premier clinicien entretenait les membres d'incrustations coulées tandis que le docteur Dubé traitait de prothèse immédiate.

Cette réunion s'est terminée par un cocktail offert à l'assistance par différents dépôts dentaires de Montréal.

Honneur à des Dentistes Montréalais et Québécois

Les docteurs Philippe Hamel et Viger Plamondon, de Québec, et Gérard Plamondon, de Montréal, viennent d'être nommés membres de l'American Association of Dental Medicine. On sait que cette organisation groupe tous les dentistes, qui veulent consacrer une partie de leur temps à l'avancement de leur science au profit de l'hygiène dentaire.

Réunion du Bureau des Gouverneurs de l'A.D.C., à Digby

Du 20 au 24 juin inclusivement, l'Exécutif, les Délégués des provinces et différents présidents de comités d'étude de l'A.D.C. ont siégé à l'hôtel Digby Pines. Les rapports des différents comités furent étudiés par l'assemblée générale et des résolutions furent adoptées pour favoriser l'exercice de la profession dentaire canadienne.

À l'issue de la réunion, le Comité Exécutif suivant fut élu: Président: Dr J. K. Carver, Montréal; Vice-président: Dr H. J. Merkeley, Winnipeg; Secrétaire et trésorier: Don W. Gullett, Toronto; Membres: Gustave Ratté, Québec, J. F. Giffen, London, V. D. Crowe, (ex-officio), Truro.

Au nombre des membres des divers comités d'étude nommés à cette réunion, on trouve: Comité de Législation: Denis Forest, Montréal; Comité de Finance: J. K. Carver, Montréal; Comité du Journal: Gustave Ratté, Québec, Gérard de Montigny, Montréal; Comité d'Education Dentaire: A. L. Walsh, Montréal, Ernest Charron, Montréal; Comité du Programme: Gustave Ratté, Québec; Comité des Recherches: A. G. Racey, Montréal, Gérard de Montigny, Montréal; Comité de Nomenclature: Gérard de Montigny, Montréal; Comité des Relations Internationales: Ernest Charron et J. A. Fortier, Montréal; Comité d'Assurance-Santé: C. A. McCabe, Valleyfield; Comité de Dentisterie Industrielle: C. A. McCabe, Valleyfield; Comité du Concours du Mémorial de Guerre: Paul Geoffrion, Montréal.

Congrès Dentaire National, à Digby

Le 21^{ème} congrès annuel des dentistes du Canada a eu lieu à Digby, Nouvelle-Ecosse, du 24 au 27 juin. Environ cinq cents personnes ont assisté à cette réunion scientifique, où des dentistes canadiens et américains ont présenté des cliniques et des conférences d'un grand intérêt. La température idéale, le site enchanteur de cette région, la valeur des travaux scientifiques, tout a contribué au succès remarquable de ce congrès.

A Glimpse Into The Past

•

A chat with the Editor's mother, whose picture accompanies this article, and who is now in her 94th year, emphasizes some of the changes that have occurred during the century just past.

Her father represented the constituency of Durham just east of Toronto, at the time of Confederation, and the dress shown in the picture was the one worn at age sixteen, when accompanying her father to some of the social functions about this time.

Though advanced in years, she remembers clearly how her father had to go to sessions of Parliament at Quebec by stage coach in the winter and by boat in the summer: that a maid's wages were five to six dollars a month; that eggs sold for eight cents a dozen and sometimes as low as five; that the best cuts of meat could be obtained for fifteen cents a pound. She recalls how everyone made their own candles out of mutton tallow and how the grain was cut by cradle scythes. She remembers being dressed in black for some time, at the age of six, on account of the death of her grandmother. In those days, parliamentary elections lasted for two days and the candidates canvassed for votes all night, getting a man out of bed to exercise his franchise: if the horses were left unattended the opposition would cut the horse's harness in order to prevent or slow up electioneering.

These days are indeed different but perhaps even now the harness is cut, figuratively speaking, in many political campaigns.

In order to refresh our memories we would recall the fact that, prior to Confederation, Canada extended from the watershed west of Lake Superior eastward to Labrador. Alongside of it lay the independent British provinces of Nova Scotia, New Brunswick, Prince Edward Island, and beyond to the north-west the vast regions abandoned to the Hudson's Bay Company.





DR. GUSTAVE RATTÉ, B.A., L.C.D., D.D.S.,
Quebec City.

Official Delegate of the Province of
Quebec to the Canadian Dental Association,
and member of the Executive Committee.

Chairman of the Program Committee for
the 1948 Convention of the C.D.A.

Past President of the Société de Stomatologie of
the City of Quebec.

Gouverneur du Collège des Chirurgiens-
Dentistes de la Province de Québec.

Past President and Secretary of the
Provancher Society.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, SEPTEMBER, 1947

NO. 9

ADDRESS OF THE PRESIDENT

*of the Canadian Dental Association**

by V. D. CROWE, D.D.S., Truro, Nova Scotia

AS you are probably aware, a very large part of the work of the Association is carried on by correspondence most of which goes through our Headquarters. A yearly meeting of the Executive is held in February for two days at which matters demanding immediate attention are dealt with; some committees are formed with the Chairman and members all located in the same locality and it is therefore possible for these committees to meet from time to time. Lastly we have the annual meeting of the full Board.

We have been in continuous session here in the Pines Hotel since Friday noon. May I at this time express my personal thanks to the officers and members of the Board, the Chairman of the Committees and to all others who sat in on any of our meetings. Your excellent reports, wise counsel and patience have been much appreciated.

Due to the fact that the Board of Governors meeting has just been concluded, it is obviously only possible for me to enumerate some of the matters brought up for consideration and very briefly acquaint you with the action taken during our meeting here.

(1) *Council on Dental Education:*

This has developed into a most important committee. At a two day meeting held in Montreal in October last, recommendation was made that continuity of membership be maintained by three, two and one year election of members. A Committee was named to study the establishment of a National Examining Board. A Committee was appointed also to prepare a report re Standardization of Pre-Dental, Biological, Dental Technical and Clinical Subjects.

(2) *Committee on Publications:* This Committee has of course to do with the publication of our Journal and we owe Dr. Lowery, the Chairman, and his associates a debt of gratitude for the amount of work done during their term of office. The following changes are being suggested: (1) More space for reading material and therefore less advertising revenue; (2) Additional expense due to salary increases of the Staff; (3) The setting up of a Journal fund by this Association to take care of such changes.

(3) *Dental Services Committee:* Our Vice-President, Dr. J. K. Carver, the Chairman of this Committee, has done excellent work in establishing favourable relations with the De-

* Presented at the National Convention of Canadian Dentists, under the auspices of the Canadian Dental Association and the Nova Scotia Dental Association, at the Pines Hotel, Digby, Nova Scotia, June 24, 1947.

partment of National Defence. This has necessitated at least two meetings in Ottawa. A recommendation was made to the Departments concerned, that all dentists, federally employed, maintain their licence to practise in good standing with their Provincial Board as a condition of their employment.

- (4) *D. V. A. Services*: There has been some disappointment and grievance in some provinces that more elasticity was not allowed as far as the time limit is concerned in commencing certain Veterans' dental work. Dr. Cameron has reported that the time limit has been extended 6 months in specific cases. A very considerable amount of work has been done in pressing for an increase in rate of pay for officers of the Royal Canadian Dental Corps. Further consideration is also being sought with regard to raising the age limit for service.
- (5) *Unification of Federal Dental Services*: Dr. Janes' submission on this question was presented to this meeting.
- (6) *International Relations*: Our Secretary has made plans to meet with representatives of the British Dental Association previous to the meeting of the American Dental Association in Boston in August. Dr. Charron, Dr. Carver and Dr. Gullett and your President are the official C.D.A. delegates appointed by the Executive. It is hoped that as many of our members as possible, will attend this function which is to take the form of a dinner.
- (7) *Program*: Twelve meetings of your Program Committee have been held in preparation for this year's National Convention. Difficulty was anticipated and discovered with regard to availability of sufficient rooms to accommodate the essayists and group clinicians. Your Committee asks your kind indulgence for possibly some congestion in this respect. I can vouch that they have worked very hard to give you a balanced, interesting, and instructive program and at the same time provide recreational facilities that you may all enjoy. In your name may I thank the following who have made up the General Committee. Drs. H. S. Crosby, G. M. Logan, G. M. Dewis, J. S. Bagnall, P. Christie, Ross Harrington, W. G. Dawson, Laurie Cameron, A. B. Haverstock, Jas. McGuigan, J. H. Rice, E. W. Barnstead, and Dr. Hugh Eaton as Chairman. We are receiving the highest compliments of the wonderful work done by the Sub-Committee on Hospitality completely organized by the New Brunswick men under the able Chairmanship of Dr. Jimmie O'Brien. They are certainly deserving of our grateful thanks.
- (8) *Next Year's Meeting*: Our National Convention is scheduled to be held at the Manoir Richelieu, Murray Bay, Quebec, late in June. Under Dr. Carver's leadership and with Dr. Ratté as Program Chairman a very happy and successful meeting is assured.
- (9) *War Memorial Scholarships*: Conditions and requisites have been drawn up for the regulation of these scholarships and will be forwarded to all schools by C.D.A. Headquarters.
- (10) *Auxiliary Services*: Recommendation was made that Provincial Boards be urged to review their respective Dental Acts and if necessary, strengthen them in anticipation of application from dental technicians for some type of legislation or incorporation. This will also apply to the question of hygienists.
- (11) *Dental Health & Public Relations*: This Joint Committee has been separated under terms of reference prepared for each.
- (12) *Research*: We regret that Dr. R. G. Ellis felt forced to resign his position as Chairman of this Committee due to his election as Dean of The Faculty of Dentistry, University of Toronto. Dr. W. G. McIntosh

has been elected as Chairman.

(13) *Our Financial Structure:* Since our last meeting a commendable start has been made towards the goal so strongly urged by our immediate Past President, Dr. Harvey Reid, namely the desirability of a capital fund of sufficient size to give stability and strength to such an organization as ours.

Your Executive has unanimously agreed that a \$10.00 fee per member is the minimum objective to be sought.

We are also optimistic in the belief that if our men became fully informed of the activities carried out by this organization on their behalf and for the advancement of the Profession, there would be very little difficulty in obtaining this increase in fees.

To quote a statement appearing some time ago in our Journal. "If organized Dentistry would serve its purpose well in a nation of strong organizations, it too must be strong. Its members should give that proposition first place, letting the rate of dues fall where it will."

This matter of finances brings up a point which in my mind is of great importance, namely the stimulation of

our members to take a keener interest in our National Association. Dr. Rooney made a strong plea to this end in his Presidential Address in Winnipeg two years ago. Drs. Reid and Gullett certainly brought knowledge and understanding of the Association's activities and problems to all who were privileged to see and hear them in their coast-to-coast visits last year. Publication of our activities in the Journal as is now being done, will, I think be a great help.

Dr. Garvin, in one of his able editorials closes with this thought. "If we are to avoid trouble in the future, we must all acquire the habit of taking an active interest in our National Dental affairs."

*"The tissue of the Life to be—
We weave with colours all our
own,
And in the field of Destiny
We reap as we have sown."*

In closing may I bespeak for my successor in office, the same wonderful support that has been given to me. Gentlemen, it has been a great privilege and a high honour to serve you.

ANNOUNCEMENT

Montreal Dental Club Annual Fall Clinic

The 23rd Annual Fall Clinic under the auspices of the Montreal Dental Club will be held at the Mount Royal Hotel October 22-24, 1947.

The program will consist of limited attendance clinics of both one and two hour duration covering Immediate Dentures, Endodontia, Children's Dentistry, Local Anaesthesia, Porcelain, Acrylics, Amalgam, Office Management, Crown and Bridge and Operative Dentistry. Two progressive clinics of three sessions each on Periodontia and Full Denture Prosthesis will also be given as well as table clinics and essays and papers on diversified subjects of special interest to the profession.

Amongst clinicians appearing will be Dr. H. D. Grubb, Cleveland, Ohio; Dr. F. W. Stevens, Philadelphia, Pa.; Dr. I. H. Ante, Toronto, Ont.; Dr. H. Spiro, Chicago, Ill.; and Dr. R. B. Munn, Milwaukee, Wis.

DR. M. L. DONIGAN,
1414 Drummond St., Montreal, Quebec

A GENERAL OUTLINE OF ORTHODONTICS*

by JOHN ABRA, D.D.S., Winnipeg, Manitoba

FIRST, what is Orthodontia? Angle defines it as "That science which has for its object the prevention and correction of malocclusion of the teeth". My second and last definition is of Malocclusion which according to Angle again is "Any perversion of normal occlusion of the teeth". Orthodontia, however, is a part of dentistry and to a greater or less degree every man who practises dentistry also practises orthodontia. Perhaps I should enlarge on just what I mean by that. Teeth depend for their support upon those on either side of them. If a tooth is lost there is a veritable collapsing of the dental arch in which this tooth was a component unit. Even if only a portion of the tooth is destroyed by dental caries or otherwise, there is a proportionate disturbance in the balance of the denture. Rotated teeth have an upsetting influence because there is but one distinct place on the mesial and distal surface of each tooth where the next tooth in line should rest and when this is not available the arch is rendered proportionately unstable; hence the importance of normal contour in restorative dental procedures. It was with this in mind that I made the statement that to a certain degree all dentists in making restorations of any kind are in a sense practising orthodontia, because if you will recall the definition of Orthodontia it includes the prevention of malocclusion. In accurately restoring contact points in proximal restorations and providing properly carved occlusal surfaces which fulfil the required mutual assistance between teeth during mastication, a dentist is preventing malocclusion.

In Dr. Angle's writings, the organ of

mastication is repeatedly referred to as "The Mill". This is indeed a most appropriate figure of speech, for in the various functions of the teeth we find duplication of the work of the grist mill. The particles of food, cut or torn off by the incisor and cuspid teeth are fed to the bicuspid and molars by the "Hopper" muscles, the buccinators and kept in contact with the grinding stones, which are the occlusal surfaces of these teeth by the muscular action of the tongue, lips and cheeks. The powerful masticatory muscles supply the force that is required to start and maintain the mill in action. This functional activity is only developed and maintained at the highest point of efficiency when the dental units of the human mill are in harmony with that basic law that we designate as the foundation principle of orthodontia—normal occlusion. If any of the teeth are missing, rotated, in perverted axial position or malalignment, the normal relationship of the functioning surfaces is rendered impossible and hence the biting, tearing, cutting, triturating, comminuting and grinding actions of this machine are proportionately impaired.

In the normal arrangement of the dental units, every tooth excepting the maxillary and mandibular third molars and the mandibular central incisors, is in contact with and supported by four other teeth when the teeth are closed in centric occlusion—that is, those on either side in the same arch and the two with which it occludes in the opposite arch. There is a definite place for every tooth and only in that place can this tooth function perfectly, give mutual support to the other teeth

* Presented before the Winnipeg Dental Society

and be harmonious to the denture, the skull and to the individual.

LEGAL RIGHT TO PRACTISE ORTHODONTIA

As we have decided then that orthodontia is a part of dentistry, it follows that every qualified and licensed dentist has a legal right to practise it. You will notice I said the legal right. Whether one has the moral right or not is a different question. Let me illustrate what I mean. For several years before the war and for five and a half of the six years I spent in His Majesty's Forces I did not extract teeth. However, if tomorrow a patient was to come to my office to have an upper central incisor tooth extracted, I have the legal right to extract that tooth, provided of course, that in my estimation the tooth should come out. Permit me to say (in all humility) that I believe I could accomplish it successfully. If however, the tooth to be extracted should be a badly impacted lower third molar, my legal right still exists but my moral right disappears. Why?—because I doubt if I could do it successfully. Therefore, the moral right of any dentist to undertake the correction of a malocclusion rests upon the question—Can I do it successfully?

What should be the attitude of the dentist when a child is brought to him, and he is asked to give his opinion as to the need of orthodontic treatment? Here we must divide the dentists into two groups: —

1st. Those who do not include orthodontia in their practice.

2nd. Those who do include orthodontia in their practice.

Let us consider the first class. There are cases brought to you all, I am sure, which every layman knows should have treatment, and there are also cases brought to you all, I am sure, which never should be touched, but with regard to the doubtful cases, what advice should you give? I believe that if a dentist has had no training in the science of moving teeth and

does not include orthodontia in his practice he should be very limited in his remarks to the parents. If he thinks something should be done for the case but that he is not the one to do it I think he will save himself a great deal of embarrassment if he were to speak to the mother somewhat as follows:—“Mrs. Smith, I do not do this type of work and would not like to accept the responsibility of advising you on the case. It is one of those cases which might improve and on the other hand it might become a great deal worse, at least that is the way it looks to me. I would like you to see Dr. So and So. In my opinion you will then receive the advice you need regarding this case”. I sometimes wonder why more men do not follow this procedure. Is it because the dentist does not like to admit that he does not know everything about all branches of dentistry? Is he afraid that he will lose prestige in the eyes of the parents? If this is so, I think a very great mistake is made. Dentistry in my opinion, covers too great a field for any one man to be afraid to admit that he does not know it all. A specialist, you know, has been defined as a man who knows more and more about less and less. In this respect, I believe that we, as dentists, have a great deal to learn from our brothers in the profession of medicine—patients are referred from one to the other almost as freely as the ball is passed by the backfield of our own Blue Bombers, and the patients, I am sure, feel that they are getting a good professional service.

REFERRING OF PATIENTS

Every week we have patients in our office who have been referred by “Mrs. Jones, whose little girl is a patient of yours”. When the case has been examined and the condition explained to the parents the inevitable reply is “Well why didn't my dentist tell me about this? I have had little Mary to him every six months ever since she

was four years of age." It is times like these—and they happen all too frequently—when the orthodontist has a hard time covering up for his confrère and I know a good many cases where, in spite of the most tactful handling, patients have been lost to practices just because advice was not given or a bad malocclusion overlooked. I have often wondered just how some of these cases are overlooked and one reason, I am sure, is that the dentist, especially now when you are all so busy, does not take time to make a complete diagnosis. In other words, the first thing a patient is instructed to do after being seated in the chair is "Open wide, please". Well, gentlemen, you cannot diagnose malocclusion when the mouth is open. I would say that fifty per cent of the so-called Class Two or distocclusion cases show nicely rounded arches, both in the maxilla and the mandible and yet when the teeth are closed in their normal bite the lower anterior teeth may bite into the soft tissue of the palate as much as three or four millimetres lingual to the cingulum of the upper anterior teeth. Another situation is often reported as follows:—"Some time ago I went to Dr. So and So concerning the child and he assured me that everything would be all right." Now I am as sure, as I am that I am standing here, that the dentist gave no such assurance but he did manage by his attitude to make the parents think that such an assurance was given and the parents probably thought "Oh well, there can't be much wrong with Johnny because Dr. So and So treated it in such a light hearted manner and I don't think he would have done so if there had been much wrong with him". And so the impression is created that everything will be all right. But the time comes when it is evident to the parents that everything is not all right and then they come to the orthodontist and he has to listen to some very uncomplimentary

remarks about the dentist—probably almost as uncomplimentary as the dentist sometimes hears about the orthodontist.

NORMAL OCCLUSION

There is another point I should like to make on diagnosis. If Orthodontia is the correction of malocclusion of the teeth, then to diagnose it we must know malocclusion when it is presented to us and in order to do so we must have clearly fixed in our minds what normal occlusion is. It may seem presumptuous on my part to review normal occlusion to a group of dentists. I have no doubt but that many of you know normal occlusion as well as I do, but when I tell you that I have often been asked by men to give advice on cases when they could not tell me the relationship of the first permanent molars you will understand my doubts. Again, I have had letters sent to me asking advice on a case when a cast of the maxilla was forwarded without a cast of the mandible. In fact just last week I had a set of casts sent to me from the country and there was no indication whatever of the way the lower occluded with the upper and in this particular case the occlusion might have been such as would place the case in any one of the three great classes of malocclusion.

Dr. Angle presented his classification of malocclusion of the teeth to the profession in 1899 and although it has been criticized by writers ever since, it is still standard today and undoubtedly will remain so because it is based upon the principle of normal occlusion and is exceedingly simple yet all inclusive. At the time this classification was introduced, Dr. Angle was of the opinion that the maxillary first permanent molars were positively stable landmarks in skull anatomy and hence concluded that the mesial or distal relationship of the mandibular tooth arch and body of the mandible could be analyzed by the cusp and inclined

plane adjustment of the first permanent molars. Now, however, we know that the maxillary first permanent molars, although more consistently normal than the position of the other teeth, do vary under certain conditions.

CAUSES OF MALOCCLUSION

Causes of malocclusion are many and varied but can best be divided into three groups, which will, I am sure, recall them to your memory.

First:—Hereditary and Pre-natal.

Second:—Post-natal.

Third:—Environmental or habit.

We will discuss them one at a time.

HEREDITARY FACTORS

There is I am sure no doubt in the minds of most of us that there is an architectural plan for each individual part of the body laid down at the time of union of the female and male sex cells to form a single cell which ultimately grows to become a body. Consequently, there must be a growth pattern for the facial bones, muscles and teeth. The natural forces of growth, implanted in the cells of the part, if properly nourished by normal metabolic processes, stimulated by balanced hormone control, aided by good health and proper food, unhampered by disease and activated to highest efficiency by vigorous functional forces will evolve perfectly formed structures capable of accommodating the dental units harmoniously designed for these particular tissues. But so many "Ifs" must be included in this journey toward perfection that there are possibilities for errors to creep in. The sum total of these errors finds expression in malposition of the dental units. It is quite possible too that the same processes that have been influential in causing a retardation of the growth patterns of the facial bones and thus producing malocclusion of the teeth primarily, are also underlying factors in evolving many of the conditions, such as abnormal muscular habits and tone,

mouth breathing, allergic reactions, faulty calcification of the bones, etc., that tend to multiply the effects of this impaired growth. In other words we are undoubtedly dealing with a cycle of events and the initial stages of this cycle are undiscovered while the more advanced portions of the series are clinically evident. It is probably true that no one factor is ever the sole contributing cause of malocclusion. The two forms that seem to be actually transmitted through the germ plasma are missing and supernumerary teeth. The former condition can almost always be traced in the family of one or other of the parents, although it is not always the identical tooth that is missing in succeeding generations. Supernumerary teeth are more difficult to locate in preceding ancestors, perhaps because their presence may have been unknown, but there is enough evidence at hand to point to the inheritance of this anomaly also.

In the hereditary or pre-natal group we must include the condition of the mother during the formation and development of the embryo. It is reasonable to suggest that if the blood stream of the mother from which source the building materials for the foetus are derived, is lacking in the proper amount and kind of elements, with special emphasis laid on the mineral content of them, there would be improper and faulty tissue construction in the embryo which might have an effect on the bony framework of the jaws and render these susceptible to environmental pressures in later life. Diseases of a serious character or serious traumatic injuries to the mother during pregnancy might have disastrous effect on the delicate tissues of the young embryo and produce its result later in the area of the teeth and jaws. Hare-lip and cleft palate are the result of a failure in the growth processes during the fifth to ninth week of embryonic life: the cause is unknown to modern science but the

result is only too obvious. Operations upon the bony structures of the maxillae in a surgical effort to close the cleft are very apt to result in a displacement of the tooth germs of the permanent teeth and so lead to extreme forms of malocclusion.

POST-NATAL FACTORS

In the post-natal group we have a large group of factors conducive to the production of malocclusion that are a part of or associated with the component elements of the dental arches themselves. These may be enumerated as follows:

- (a) The premature loss of deciduous teeth.
- (b) The loss of permanent teeth.
- (c) The prolonged retention of deciduous teeth.
- (d) Missing and supernumerary teeth.
- (e) Perverted functional activity of the facial muscles.
- (f) Abnormal fraenum labium.
- (g) Improperly designed dental restorations.
- (h) An inharmony of tooth material or tooth size.

I believe more questions are asked about the causes of malocclusion than about any other part of dentistry and I think we might profitably spend some time in discussing each of these.

The deciduous dentition has as definite an arrangement of its component parts when in normal relationship as its permanent successor. Therefore, it is of extreme importance that its individual units be kept intact until the proper time comes for nature to discard them. By such a normal procedure the correct position of the succeeding teeth is made possible. Premature loss of a deciduous tooth, by breaking the arch continuity and the normal proximal contact, allows for the forward movement of the posterior teeth and closing of the space. The permanent successor is blocked out and it has no chance of erupting into a normal position.

As we pointed out earlier, each tooth in the permanent dentition is in contact and maintained in position by four other teeth. Therefore, if a tooth is lost and not replaced, all four of its associates are affected. The greatest effect is noticed in the teeth immediately next to the space. These immediately begin to tip toward the opening until its normal inclined plane relationship is destroyed, its correct axial inclination is perverted and malocclusion is established. Probably the greatest deformities of this type are caused by the early loss of the permanent molars, especially the first or six year molar. One of the important functions of this tooth is to establish and maintain correct arch and jaw relationship, both mesiodistally and vertically during the period in which the deciduous teeth are being shed. Hence, if these teeth are missing during such a critical time in denture history, abnormal closing of the bite is almost certain to result.

Failure in normal absorption of the roots of the deciduous teeth is not an uncommon condition. This is attended by very marked displacement of their successors. Especially is this true in the incisor and cuspid regions where if the roots do not absorb normally the permanent teeth which are developing just lingual to the deciduous root are kept in that position and must necessarily erupt lingually to their deciduous predecessors or they may erupt along the partially absorbed roots and appear in severe states of rotational malocclusion.

The absence of any of the units of the permanent dentition necessarily prevents the evolving of normal occlusion. When a tooth is congenitally missing, the space that it should normally occupy usually closes to a greater or less degree, with the same result as we found in discussing the too-early loss of permanent teeth. The teeth most frequently missing, excluding the third molars are the mandibu-

lar bicuspid and the maxillary lateral incisors.

The presence of supernumerary teeth is not as frequent an oral complication as that of missing teeth, but should always be looked for. Such teeth cause disturbed occlusal relationships by deflecting the crowns of the adjacent normal teeth, either during their development or by displacing the roots of previously erupted permanent teeth thus crowding the arch and causing an abnormal relationship of all the teeth in the area. The bony and muscular structures that compose the organ of mastication depend upon the stimulating forces that are derived from chewing to gain maximum efficiency in cell growth. It is unfortunate that the texture of the food given to the child today is so soft that little or no mastication is required in order to reduce it to a consistency that will permit it being swallowed. Dr. L. M. Waugh of Columbia University in his research work among the Eskimoes found that these native children with deciduous dentures could exert far greater power with their masticatory muscles as recorded on a gnathodynamometer than a picked group of American athletes, while the men and women of this race could register three or four times as much strength in their masticatory muscles as could the athletes. The denture growth found in the Eskimoes was quite universally perfect provided the individual had not been in contact with any of the food materials used by his more cultured but physically defective white brothers.

Most of us have seen the results of an abnormal fraenum labium and little need be said of it. Pressure from this strong fibrous muscle tissue results in the crowns of the maxillary central incisors being badly deflected from their normal axial position and a very unsightly deformity.

Unless the anatomical size and form of a carious or broken down

tooth are closely reproduced when artificial restorations are made so that the correct proximal contact and proper plane relationship is made possible, thus again balancing the natural forces of occlusion, there is apt to be a gradual shifting in tooth relationship, as Nature attempts to obtain a new balance, and this will result in a variable degree of malocclusion. Severe cases of denture deformity have been traced to such a causative factor as the failure to reproduce the inclined planes on the occlusal surface of a first mandibular molar restoration. Unquestionably there are a few cases that the dentist and the orthodontist may find over a period of years, in which there is more tooth material in one dental arch than in the other so that it is impossible to absolutely harmonize the two arches. Fortunately, most cases that on superficial examination exhibit such a condition, on proper treatment will be found perfectly harmonious.

ENVIRONMENTAL FACTORS

The third and largest group are called for want of a better term the Environmental Causes. In this group are placed all the aetiological factors that are not concerned with the structural elements of the dental arches themselves. In this group also are placed the systemic conditions that tend to render the bony tissues of tooth support so susceptible to the forces of occlusion or to abnormal environmental pressures that they are unable to adequately support the teeth against them and a malocclusion develops.

Tabulated in order we have:

Habits—the largest and probably most important.

Abnormalities of the muscular tissues in the oral cavity.

Posture pressure.

Enlarged tonsils.

Imitation.

Faulty metabolism.

Constitutional diseases and disturbances.

Abnormal functioning of the glands of internal secretion.

The first of this group I think concerns us most and I cannot overemphasize its importance. In this group we have the habits common to most children to a lesser or greater degree: sucking habits—thumb, finger, tongue, lip or hand. Sucking by an infant is a normal process and is probably the first voluntary action learned after birth. The infant seeks to obtain satisfaction and comfort for all irritations by starting the sucking process in motion. This normally calls for a nipple between the maxillary and mandibular gums in the incisor region, and if this cannot be obtained the substitution of some other tissue or article is quickly adopted and contentment thereby established. When the use of a hard substance between the incisors is a part of the sucking habit, the permanent molars, deciduous molars or bicuspid are often kept out of occlusal contact to such an extent as to cause them to develop a supra-occlusion while the incisors manifest an infraocclusion. If a thumb, a finger or fingers are used in conjunction with the sucking, the incisors may be affected by the pull of the digit and the weight of the arm. The greatest deformity seems to follow the use of the thumb with the palmar surface upward. In this position the thumb acts as a powerful lever forcing the maxillary incisors labially and the mandibular incisors lingually. The other factors or causes in this group I pass over, not because they are not important, but because I believe they are the cause of a smaller number of malocclusions and in most cases are not easily recognized.

DIRECTIONS TO PARENTS

I have reviewed a number of examination questions on orthodontia and a favourite one that appears very often is this:—"If a parent brings a four-year-old child to you and you find

the teeth in good condition and the occlusion normal, what would you do to assure normal occlusion on the completion of the eruption of the permanent teeth, without, of course, direct orthodontic treatment. Can you assure the parents that the child will have normal occlusion if he is left in your care and your instructions carried out?" We have substantially the same question asked us in our practice every day. I usually answer the question somewhat as follows:—First you must impress upon the parents that these deciduous teeth must be looked after as carefully as the permanent ones. Simply to tell the parents in a casual way will accomplish nothing. I would advise showing the parents x-rays of a child of similar age—a better plan is to have x-rays of the child under question—showing the parents how the permanent teeth are developing, calling their attention particularly to the development of the first permanent molars, and then to show them, by means of models how these teeth should occlude when erupted. Explain to them how, if any of the deciduous teeth are lost or if their proper width is not kept intact, the pressure caused by the eruption of these molars will be misdirected, forcing them into malocclusion and also causing the upper and lower teeth to meet in the wrong relationship one with the other. Impress upon the parents that it is not enough that the deciduous teeth be maintained but that the full width of these teeth be maintained and in my opinion this cannot be done with gutta percha or soft cement fillings. If by accident, any of these deciduous teeth is lost before the proper time, the space should be maintained. Enquire into the general health of the child and warn the parents of the dangers of mouth breathing, because, although it may be true that mouth breathing is not as often the cause of malocclusion as has been claimed, still it cannot be over-

looked. The diet should also be discussed, just how deeply the dentist should go depends upon how much he knows about diet. You can at least impress upon them that the diet should be such that the child will have to use the deciduous teeth. We have already discussed habits—they should certainly be mentioned to the parents. Prophylaxis must be discussed and regular visits to the dentist arranged. I consider every four months not too often to see the little child, but oh so often I have heard dentists say that the parents are not willing to pay for the service. I ask you to think for a minute if they would not, if the necessity for it was properly presented to them. To me it does not seem reasonable that the parents will pay the orthodontist his fee, sometimes running to hundreds of dollars, and will not pay the family dentist for looking after the mouth of the child. You may ask, can you assure the parents that if your instructions are carried out, malocclusion will not occur. No! you cannot, because unseen and unknown forces may be at work which will cause malocclusion in spite of your very best efforts, but you can prevent a considerable number of cases, and even in those which you cannot, you have preserved for the child a good masticatory service and often the time necessary to correct a malocclusion is lessened due to your efforts. Because we cannot prevent malocclusion in all cases is no reason for not trying any more than it would be not to teach the practice of prophylaxis to the patient because even with the best of prophylactic care, caries may occur.

TIME TO COMMENCE TREATMENT

One of the questions I am frequently asked, and I am sure you are too, is: What is the best age to commence the treatment of malocclusion? Someone has said as soon as the malocclusion is manifest and many articles

have been written upholding that view. The old teaching was not until all the permanent teeth, save possibly the third molars, have erupted. I have no hesitation in saying that this latter teaching is wrong, absolutely wrong in my opinion; on the other hand I am not sure that the other teaching is absolutely correct. Many things have to be taken into consideration. While I am convinced that many cases have been left to develop until a long and difficult treatment is required, whereas, if taken in time a very simple treatment would have sufficed. I am likewise convinced that orthodontic treatment is sometimes started and not finished any sooner than if treatment had been delayed for a couple of years. Now I am on dangerous ground and I have listened to a good many hot arguments on this subject. Let me say this, that mesial occlusion cases can hardly be started too young. Here is a condition which may easily become almost impossible to treat and personally I have never seen a case of this class that I have not recommended immediate treatment save where delay was necessary because teeth required filling or where a nose or throat operation was indicated. I would have no hesitation in treating such a case even when no permanent teeth are present. Distocclusion cases should as a rule be started early although greater exceptions exist in this class of cases. In considering the class one or neutroclusion cases each case is almost a law unto itself. Now let me call attention to one or two things in this connection which are very important in considering the time to commence treatment. First, the teeth, individually, must be in good condition. If it is a case with a lot of cavities, or a lot of poorly placed fillings I am doubtful about undertaking treatment too early, for in such cases the teeth sometimes give trouble and between the patient being referred back to the dentist for fillings and replacement of

fillings together with the occasional extraction the patient is often a most unsatisfactory one to work for and very often I advise no treatment until the child is say around ten years of age. This in spite of the fact that the condition which causes me to delay likewise precludes the possibility of the case becoming better. The other condition I will mention is this. Without the parents' co-operation it is most difficult to obtain satisfactory results. In this connection it seems, I may say, almost impossible to get parents to understand that where cases are commenced between five and seven years of age, that one period of treatment may not be all that is required. Even if you have it in writing, and they cannot help but admit that they received such a statement, yet they will claim that they understood that the period of treatment would be sufficient.

BENEFITS FROM TREATMENT

Another question we are often asked is, "What benefits can be obtained from orthodontic treatment? The first and most noted, if not the most important, is that of appearance. Normal occlusion is necessary for the best appearance. It helps both socially and in business to have a good looking set of teeth and if they are your own so much the better. Frankly this is the reason that possibly the larger proportion of cases are undertaken. That is the reason that weighs with the parents and patients, and is a most important one. I myself have seen a young lady cry when I advised against orthodontic treatment for her appearance was certainly against her. Important as this reason is, it is not the most important. The benefit to health is greater, since teeth in normal occlusion are easier to keep clean. An American specialist on periodontia has made the claim that 95% of pyorrhea is caused by malocclusion. Personally, I think he places it too high, but an estimate of 75% is, according to

several papers I have read, very conservative. Orthodontic treatment restores the possibility and should restore the certainty of mouth breathing. But do not misunderstand me—where mouth breathing exists, orthodontic treatment of itself may not always restore nasal breathing but on the other hand, there are many cases where it is absolutely foolish to expect nasal breathing without orthodontic treatment. Another benefit I might mention is this. It helps the patient speak more clearly; especially is this true in cases where the arches are widened and more room given the tongue.

DANGERS OF TREATMENT

Now as to the danger of orthodontic treatment. The one we will consider is: Does it cause decay? Here I may say I try to impress upon my patients and their parents the fact that decay may be caused if the teeth are not kept clean and appointments kept regularly. I have seen decay occur and in every case I think I am safe in saying that either the patient did not keep appointments regularly or did not make any attempt to keep the teeth and appliances clean. Decay would occur in many cases whether orthodontic treatment was undertaken or not. I have a number of patients that I see at least twice as often as I would if I could depend on them properly caring for their teeth. They can if they only will. I am satisfied in my own mind that where undue amounts of caries occur during orthodontic treatment the patient is over 95% to blame.

CONSULTATION

Let us now consider the dentist who practises orthodontia, whether exclusively or in connection with other branches of dentistry. This dentist, of course, has to accept the responsibility of advising the parents as to the need of orthodontic treatment and when it should be given. This he cannot do without obtaining a cast of the

patient's mouth and in most cases full mouth x-rays. Of course, he must also inquire into the general health, habits, etc., of the patient. Here let me speak on the question of a fee for consultation. Why should not a patient pay as willingly for dental as for medical advice? However, we all know they will not and just how much is our advice worth regarding orthodontic treatment? When we first see the little patient why not approach the parent somewhat as follows? — "Mrs. Smith, to tell you that this case needs treatment is to tell you something you already know, but to outline a treatment, to give you even an estimate of time required will require further study. Of course, I could guess at a lot of things, but I do not want to do that, nor do you want me to do so. To give you any real advice which will be of value I will require models, a full mouth x-ray examination and a profile photograph. Now for the reason that I can give you so little information regarding this case at this time I am charging you no fee. If you wish me to proceed and make the necessary examination as I have outlined then I can give you advice which I am sure will be of value and my fee will be so much."

While this is not a paper on the handling of children, yet if one is not fond of little children he had better not practise orthodontia. My experience has been that although I have little difficulty with children referred to me by dentists, this does not always hold true when they have been referred by physicians. In that statement I am not casting the slightest reflection upon the physician. The fact is that the physician has often had to operate on a child previously and the child has suffered pain, consequently when he suggests another form of treatment they are apprehensive.

This is not a paper on practice management either but it is necessary

before treatment is undertaken that a complete understanding is come to with regard to an estimate of time—making sure it is only an estimate. The fee should be discussed with the parents, the appointments necessary, the care of the teeth during treatment, the diet and other matters you may deem essential.

APPLIANCES

The appliances used in orthodontic treatment vary greatly. Not all men use the same appliance for the same case, therefore, in treating a case of malocclusion do not necessarily use an appliance because it is highly recommended by Dr. So-and-so. Doctor Lischer, one of the leading orthodontists in the United States has said "After all, appliances are only relative. I am willing to admit that many men obtain excellent results from appliances that I do not use". Those may not be his exact words but they are his exact meaning and no truer words were ever spoken. Just last week I had a patient referred to me who had been under treatment in Ontario. The appliance was one which I would probably not use, certainly I would not like to have to complete the case with it, yet I know it is an appliance with which many men obtain excellent results, and had the patient remained under the care of the man who started the treatment, I have no doubt that excellent results would have been obtained. In this case I spoke to the father, telling him I would likely change the appliance but that this was not to be considered any reflection on the man who started the case. I mention this to impress upon you the fact that there is no one appliance. Therefore, when you undertake to treat a case, select an appliance which in your hands will accomplish the most. No doubt you are all familiar with the old Angle clamp bands and buccal arch. I have read papers by Dr. Angle where he stated

that it was a perfect appliance and that nothing better would ever be made, yet he himself lived to make a better appliance. Appliances may be divided into two groups. "Removable" and "Fixed". The first, as its name implies, is removable by the patient. It has the advantage that the teeth can be kept clean with less trouble than with the fixed appliance. One great disadvantage is that it is often not worn regularly. It also has other disadvantages and personally I never had much success with it in the treatment of cases, but I often do use a removable retaining appliance. The "Fixed" appliance cannot be removed by the patient. Here bands are cemented to the teeth and the rest of the appliance is fastened to these bands so that they can be removed only by the dentist. The first molars are generally banded, though in some appliances all the teeth are. Care should be taken to see that the bands fit perfectly and they should not impinge on the gums. In fitting these bands the teeth generally have to be separated and when the teeth are separated a small cavity is quite frequently encountered on the proximal surface of the tooth. Unless this is attended to (I am taking it for granted that all other cavities, if any, have been filled) the orthodontic appliance will be blamed for it. The teeth, of course, should be cleaned before you attempt to make a band and then again before you cement it. To obtain the best results the cement should be mixed carefully, thoroughly, and slowly. This can be done by a good assistant. The tooth must be dried either by wiping it with alcohol and then using air, or I believe a better method is to wipe the tooth off and use warm air without the alcohol.

Just how long should a band be left on without removing, cleaning and recementing?—no longer than a year, and sooner if there is any indication that the edge of the band has sprung

away from the tooth. Where the cement has been properly mixed and the band properly cemented on they might last for some years, but prevention is better than cure. I have made it a practice to remove all bands in from nine to twelve months and refer the patient to his dentist for careful examination.

Whether there are as many failures in orthodontia as in other branches of dentistry or more I leave for you to decide, only reminding you that a failure in orthodontia advertises itself more than a failure in other branches of dentistry. No matter how capable the orthodontist is he is bound to have failure. Doctor Mershon, who is recognized the world over as one of the leading orthodontists, commenced a paper which he read before the first International Congress of Orthodontia, by stating that he had been practising for so many years and came before us as one who had at least his fair share of failures. Often these failures occur for some unknown reason not connected in the slightest way with the treatment. This is true in all branches of dentistry. However, not all failures can be attributed to this cause. The operator may have been mistaken in his diagnosis. His treatment may have been wrong and even that treatment may have been given in an unscientific manner. In such cases the blame belongs to the one treating the case. Again non-cooperation of the patient and parent may be entirely responsible for the failure. Very often it is, but here again the blame sometimes can be placed to a considerable degree upon the operator. Frequently cooperation can be obtained by the right tactics and if not, as one writer said, the proper method is to swear like the devil and give up the case. Well you need not carry out the first part of the advice, but why try to obtain a result knowing all the time that you cannot?

MEDICAL ARTS BUILDING

The Forum

A NEW ANALGESIC, AN-148: PRELIMINARY REPORT

by ALLEN A. GENTLING, M.D., Fellow in Anaesthesiology, Mayo Foundation
and JOHN S. LUNDY, M.D., Section on Anaesthesiology, Mayo Clinic.

Condensed from Proc. of Staff Meetings, Mayo Clinic, June 25/47.

A new analgesic, 1-dimethylamino-3, 3-diphenyl-2-methyl-4-hexanone, or AN-148, (supplied by Abbott Laboratories) as it is designated, is now being used as a substitute for morphine. This report concerns the clinical observations made on use of this agent from December 24, 1946, to April 15, 1947.

The 106 patients observed had a wide variety of diseases, all of them having one thing in common—pain. In all but four cases, the efficiency of this analgesic was classified by us as satisfactory for relief of pain.

AN-148 has been administered a number of times as a preanaesthetic medication, before local and before general anaesthesia. The results observed by us have been highly gratifying. When regional anaesthesia was used patients tolerated the procedures exceptionally well after AN-148 was administered despite the fact that some of them were extremely nervous and irritable before the drug was given. When general anaesthesia was to be used it was noted that patients required no more of the anaesthetic agents for their particular operative procedures than would be expected with the routine premedication which we use. One patient in particular who had undergone multiple operations under pentothal sodium anaesthesia and who required what appeared to be excessive amounts of this anaesthetic agent to complete the procedure, was noted to require much less after AN-

148 had been injected intravenously

The drug has been administered orally, subcutaneously, intramuscularly and intravenously with no local reaction. We feel that in establishing a dose required for a patient it is essential to give the drug by the intravenous method in order to obtain full and immediate effect and, therefore, the bulk of our administrations have been by this route. The average intravenous dose has been 5 mg., though less has been used with success, and this is estimated to accomplish about the same as 15 mg. of morphine sulphate given by the same route.

We have given it to ambulatory patients and feel that such is a safe practice, although we have recorded instances of dizziness after administration of the drug in about a third of the cases. As far as could be determined roughly, interference with judgment or equilibrium did not accompany this sensation. No evidence of central respiratory depression has appeared but one patient complained of cardiac palpitations at the height of action of the drug.

Neither nausea nor vomiting was encountered. The drug was tolerated well by a patient alleged to be sensitive to all opium alkaloids. To the present time, in the two cases in which patients received exceptionally large quantities of the drug, no tendency to addiction has been observed.

We have discovered no incompatibilities of any kind in our preliminary

work with AN-148, but extensive investigation has yet to be carried out in this respect.

It is expected that AN-148 will prove

to be a valuable analgesic agent, especially as a substitute for morphine, and further plans for continued investigation have been made.

OBESITY

by P. M. F. BISHOP, M.D.

Condensed from Guy's Hospital Gazette, March 8, 1947.

During this period of bread rationing it may seem inappropriate to choose the subject of obesity to discuss with you. Nevertheless in spite of our present dietary plight there are still in this fair island many citizens who are not only loyal but stout.

Diet is the fundamental treatment of obesity, whatever its cause. There are three ways of "dieting." The first is to be "careful" about what you eat. This is usually completely ineffective, except in the grossest cases of gluttonous obesity. But you might as well tell a glutton to be careful what he eats, as to tell a chain-smoker to smoke only 10 cigarettes a day. The second method is to modify the existing diet drastically. There are two ways of doing this. One consists of calculating the optimal calorie intake for the particular individual and working out a series of alternative menus accordingly. In this year of grace this method is as coldly scientific as it is unrealistic. Talk of calories and you are confused and the patient is lost. The other way consists of asking the patient to give you a detailed account of his usual daily menu. This may or may not give a fairly accurate picture of his consumption of food. One usually has to assume that it does, and to use this menu as a basis of adjusting the diet. Sometimes this can be done quite simply by instructing the patient—say—to eat not more than half the amount that he does at present. But usually more detail is required. Starchy foods must be restricted—or indeed in some cases absolutely forbidden. Potatoes for instance are better excluded entirely from the diet. Bread should be strictly rationed, not more than one thin slice at each meal, with only a scrape of

butter. If possible Ryvita, or some such cereal, should be substituted. Sugar should be prohibited in tea and coffee, saccharine being allowed in its place if necessary. The sweet ration should be surrendered to, instead of demanded from other members of the family. Fresh or stewed fruit is permitted in moderation, and is certainly to be preferred to other forms of "sweets" such as suet or steamed puddings, pastries, etc. Vegetables may be consumed with impunity other than those which begin with the letters P or B such as potatoes, parsnips, peas, broadbeans and beetroot. Lettuce and other salad constituents are especially suitable as they give a sense of fullness without contributing appreciably to the calorie intake. Fried foods should be strictly avoided. Lean meat, and especially white meat, such as chicken and game, and inexpensive white fish, especially if boiled, steamed or baked, and cheese in moderation may be encouraged. In addition to the prescription of such a diet, it is important that the patient should be weighed regularly, on the same day of the week, at the same hour of the day, and on the same scales and so far as is possible, in the same clothes. A steady loss of two pounds a week should be achieved. The third method consists in starvation. The patient is admitted to hospital, preferably to a single room rather than a ward, and is given 2 Ryvita biscuits and $1\frac{1}{2}$ pints of fluid—consisting of water, fresh squeezed orange, grapefruit, etc.—daily, for 10 days or a fortnight. During this time massage, exercises, hot baths, thyroid, etc., are also given, and in some cases diuretic treatment in the form of mersalyl and ammonium chloride. The

patient is weighed every other day and the strict starvation regime continued until the weight curve begins to flatten out. For the first week or so, the daily loss of weight will be 2 to 4 lbs. but towards the end of the second week it will decrease to 1 or 2 lb. When this happens some relaxation is allowed and restricted quantities of food such as a tomato, a piece of lettuce, a piece of lean cold beef, a little jelly, etc., may be given. This drastic treatment usually results in a loss of 1½ to 2 stone in 3 weeks, and furthermore it has the great advantage that the patient loses his appetite completely during the first week, and may not regain it for some months, and so is able to live on a very low calorie diet for some time after discharge from hospital.

Of the three methods of dietary treatment the last is in my opinion the most satisfactory, but it does require

careful supervision in a hospital or nursing home.

But is treatment necessary in every case of obesity? In children and young adults it is certainly desirable. In middle or old age however the body has so conformed to its characteristic stoutness that treatment is less likely to be effective, and there are many middle-aged or elderly fat men and women whose comfortable and cheerful outlook on life would not be altered for the better by a reduction of a few stone in their weight. It is as well to bear in mind the sensible opinion of Shakespeare's Julius Caesar:

"Let me have men about me that are fat,

Sleek-headed men, and such as sleep o' nights,

'Yond Cassius has a lean and hungry look,

He thinks too much: such men are dangerous."

ORAL USE OF FIBRIN FOAM AND THROMBIN IN THE PREVENTION AND TREATMENT OF POSTOPERATIVE HAEMORRHAGE

by C. D. GWINN, D.D.S.; D. H. GRIMM, D.D.S., M.S.,
and E. W. FERBER, D.D.S., M.S., San Francisco.

Condensed from Jour. of A. D. A., July 1, 1947.

This report will be confined to a discussion of fibrin foam. The material used in this work was furnished in units containing three bottles. One bottle contained sterile normal saline solution, one contained several pieces of sterile fibrin foam and the third contained dried thrombin, which was also sterile. In use the thrombin was dissolved in the required amount of saline solution, which was poured into a medicine glass. Several pieces of the fibrin foam of varying sizes were broken off and immersed in the saline solution. Upon being saturated thoroughly the foam shrinks in size. The pieces are laid on a sterile gauze pad until used.

The cases to be reported consisted of three types: (1) those patients with a history of prolonged haemorrhage after extraction, (2) cases in which persistent bleeding from the wound

occurred during the course of the operation and (3) those patients having postoperative haemorrhage.

In cases in which the patient had a history of prolonged bleeding after extraction, the fibrin foam saturated with thrombin was used as follows: The tooth or teeth were extracted, the socket walls were smoothed as usual and sulphathiazole powder was dusted around the margins of the socket. From the fibrin foam saturated with the thrombin solution a piece just large enough to close the opening of the socket was selected and placed over the blood in the socket; no attempt was made to pack, or press it deeply into the socket. One or two plain catgut sutures, selected according to the size of the opening, were placed buccolingually and tied across and over the fibrin foam, holding it in place. A sponge impregnated with petrolatum

was placed over the socket, and the patient was instructed to exert gentle pressure for two to three minutes.

Records were kept of 31 cases in which fibrin foam and thrombin were used for the prevention and treatment of post-operative haemorrhage.

All patients were treated successfully except one with spontaneous haemorrhage (not after tooth extraction) who was suffering from a severe systemic disturbance.

The method of application of the fibrin foam and thrombin is simple. There is no indication of tissue irritation, and, as far as could be determined, there is no hindrance to the healing process. It could not be said, however,

that the sockets so treated healed any more rapidly than did those not treated.

It is necessary to apply the material directly to the bleeding point. It is not possible to pack it with much pressure exerted in its application.

There should be a definite place for this material in the practice of oral surgery. It is the most effective agent for the prevention and treatment of haemorrhage after extraction that we have found so far.

At present the cost of the material is a decided drawback to its frequent use. After the unit is opened, it must be used within a short time and cannot be resterilized.

FOCAL INFECTION

by E. H. STOKES, M.D., Ch.M. (Sydney), F.R.A.C.P.

Excerpt from D. Jour. of Australia, Oct., 1946.

There is much opposition to the removal of teeth as a routine practice to influence general conditions. Tonsils also share with teeth the doubtful honour of heading the list of sacrificial offerings to the God of focal infection and some clinicians have suggested that the surgical accessibility of these organs may be partially responsible for their frequent removal. There is no doubt that focal infection captured the imagination of the medical and dental professions to an extent unequalled by that of any other dogma during this century. Furthermore the fact that the aetiology of any disease is unknown is no reason why it should be ascribed to focal infection nor should the removal of alleged foci of infection be undertaken in a chronic case merely for the sake of doing something. The old dictum of *post hoc propter hoc* has been applied to the cases where improvement does occur after the removal of teeth but such instances, although they suggest an aetiological connection between the septic focus and the disease by no means prove such a relationship because one can never be sure that recoveries, especially of a spectacular nature, are not due to coincidental

spontaneous cures or non-specific reactions. From reliable studies it appears probable that the occasional recoveries are equalled or out-numbered by instances of immediate or delayed harm which may follow operative procedures in the form of haemorrhage, septicæmia, lung abscess or even death; as in the case of charlatans successes are more easily called to mind than failures.

While there are few reliable criteria for deciding whether or not teeth are chronically infected and fewer still to prove the relationship of infected teeth to systemic disease, there is no excuse for leaving diseased teeth in the jaws. Should there be local pain, tenderness and swelling or sinus formation and lymph node enlargement there is no doubt that the offending tooth should be removed. But it should be remembered that in many patients with arthritis the teeth, tonsils and perhaps many other tissues are adversely affected by the disease and may become infected as a result of diminished resistance and that such local evidence of disease will disappear as the patient recovers from the generalized affection.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Waye, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgcombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

Editorial

BLUEPRINT FOR CANADIAN DENTISTRY

Twenty years ago the Canadian Dental Association, which came into being in 1902, was reorganized, and thirteen years ago the Journal of the Canadian Dental Association was inaugurated. At this time our dues were fifty cents per member, half of which amount was to be allocated to the Journal. Since that time the dues have been gradually raised and the activities of our National Association have developed and assumed ever increasing importance, in direct proportion to the financial aid available. At the meeting of the Board of Governors of our Association, held at Digby, Nova Scotia, in June, it was the unanimous opinion that we should aim at ten dollar dues as a minimum and that a concerted action should be made right away to have all provinces raise their dues to eight dollars. Alberta has shown us the way, in a splendid display of leadership, in agreeing to pay ten dollars per member at once. Manitoba is paying and Nova Scotia has agreed to pay eight dollars; New Brunswick is paying six dollars at present. Quebec has agreed to pay eight dollars when other provinces will do likewise. The hands of the Ontario men are tied on account of legal difficulties but relief is being sought and then Ontario will pay eight. We have every reason to believe that all provinces will fall in line in the not too distant future.

There is a strong sentiment among dentists everywhere that if we are going to exist for long under conditions at all satisfactory to the profession; if we are going to be in a position to meet the problems with which we will

surely be faced, the C.D.A. must be given adequate support. With the financial backing which now seems, at least, partially assured a blue print for the advancement of dentistry in Canada can be drawn up. To get a picture of the nature of this blue print one has only to peruse the various reports appearing in this issue of the *Journal*, as presented before the Governors' Meeting. These governors deserve the most enthusiastic thanks from members of our profession everywhere in Canada for their strenuous efforts and their noteworthy contributions to the growth and influence of our Association.

The meeting was perfectly organized by our capable Secretary, Don Gullett, and the work carried through with efficiency and devotion under the able chairmanship of our President, Victor Crowe. Of course, one can get but a glimpse of the magnitude of the work accomplished by reading the brief summary of the reports. These reports represent very many hours of hard work, not only before the meeting, but during the meeting, and none of them were passed over lightly.

Dr. L. J. Godden, Editor of "The Dental Record" points out that this is the age of Committees, that if Napoleon were to return today, instead of saying, as has been alleged, that we are a nation of shopkeepers, he would surely be more likely to insist that we are a nation of committee-men. This writer points out that committees abound everywhere and exist for almost every purpose and lucky is he who, exhibiting but the slightest degree of a civic conscience, does not find himself at once chained to half-a-dozen. How true this is! Committee work, if done efficiently, means as Godden points out, taking time from one's office hours, thus reducing one's income, or encroaching on one's leisure time often to the extent of reducing the efficiency of one's working hours, as well as jeopardizing one's health, since dentistry is a strenuous indoor occupation and calls for as much recreation as possible in the out-of-doors. All this adds up to the conclusions, which have been frequently stated in these columns, that the Canadian Dental Association should have several full time men serving its interests, interests which affect not only our pride in our professional accomplishments and status but our incomes as well.

One could not report adequately on this Governors' Meeting if one did not express the conviction that much was done to draw still closer our English and French speaking dentists into a bond of even better understanding and co-operation. If the spirit of national unity as evidenced at this Digby meeting could be made to prevail in all walks of Canadian life, our country would be indeed blessed.

This great meeting did not just happen. The ideals and motivations that inspired the members were a logical development of a number of years of hard work, since a number of these governors have been schooled for many years in Association affairs, and it was quite apparent that the

newer members were quick to grasp the import of their calling and so much was accomplished.

Dentistry is on its way to heights heretofore unknown. Let us all do our part in helping along this most worthy cause by sowing seeds of progress wherever possible. "Be not deceived; God is not mocked; for whatsoever a man soweth, that shall he also reap."

M.H.G.

BOOK REVIEW

Operative Oral Surgery, by Leo Winter, D.D.S., M.D., F.A.C.D., F.A.C.S., Sc.D. (Hon.), LL.D., Professor of Oral Surgery, New York University; Director of the Oral and Minor Surgery Clinic, New York University, College of Dentistry; Visiting Oral Surgeon in Charge, Bellevue Hospital; Consulting Oral Surgeon, Montefiore Hospital; Chief of Dental Clinic, New York University, College of Medicine; Fellow New York Academy of Medicine. 1167 pages with 1240 text illustrations, including 16 in colour. Third Edition. Published by C. V. Mosby Company, St. Louis, Mo., 1947. Canadian Agents, McAinsh and Co., Ltd., Toronto, Ontario. Price \$16.00.

Some of the subjects covered in this splendid book on Oral Surgery are "Preoperative and Postoperative Considerations"; "Local and General Anaesthesia"; "Chemotherapy"; "Accidents Following Local Anaesthesia"; "Exodontia"; "Pain"; "Differential Diagnosis"; "Oral Manifestations of Blood Dyscrasias"; "Vitamins"; "Cysts"; "Neoplasms"; "Osteomyelitis"; "Surgical Treatment of Pyorrhea"; "Preparation of the Mouth for Denture Prosthesis"; "Fractures", etc.

The man who practises oral surgery as a specialty or engages in various phases of this field in general practice can peruse this book with much interest and profit. The twelve hundred illustrations tell the story in themselves.

In this third edition the author enlarges on the principles outlined in the previous editions by including additional description and clinical material. Much new material, therefore, has been added and other material deleted. The chapter on fractures has been considerably enlarged and offers additional clinical information and experiences with metals, including the new metal tantalum for use in implants. Skeletal fixation also has been incorporated. Chemotherapy has been considerably revised to give a more comprehensive evaluation of the role played by antibiotics in the treatment of disease processes. The early recognition of cancer is given prominence. A chapter on vitamins is included describing oral manifestations of deficiencies.

This book will not disappoint.

M. H. G.

My professional life has led me along the paths of Public Dental Service, more particularly School Dentistry. During a quarter of a century I have seen many thousands of children and the feeling has gradually dawned upon me that in this service we have the opportunity, if we will only take it, of solving many problems and lighting up many dark places. You who are in private practice, or specialist practice, rarely see the normal, and inevitably your outlook tends to become warped in the direction of the pathological. I would suggest that we have not exploited sufficiently the angle of approach which says—why is this child normal? Our attitude has rather been—why is this child abnormal? I am inclined to think the former approach might yield rich dividends.—B. R. Townend, L.D.S., in the "Dental Record."

CANADIAN DENTAL ASSOCIATION NEWS

A Summary Report of the Annual Meeting of the Canadian Dental Association

Prepared by the Secretary, Dr. Don W. Gullett

The Annual Meeting of the Board of Governors was held at The Pines Hotel, Digby, Nova Scotia, beginning on Friday June 20 at one o'clock p.m. and ending on Tuesday June 24 at twelve-thirty o'clock p.m. In attendance:

BOARD OF GOVERNORS:

- Dr. V. D. Crowe, President, Truro, N.S.
- Dr. J. K. Carver, Vice-President, Montreal, Que.
- Dr. R. L. Pallen, Vancouver, B.C.
- Dr. R. A. Rooney, Edmonton, Alta.
- Dr. W. M. Blair, Regina, Sask.
- Dr. H. J. Merkeley, Winnipeg, Man.
- Dr. Harvey W. Reid, Toronto, Ont.
- Dr. G. H. Campbell, Orangeville, Ont.
- Dr. J. F. Giffen, London, Ont.
- Dr. H. L. Field, Hamilton, Ont.
- Dr. H. W. MacDonald, Saint John, N.B.
- Dr. G. Ratté, Quebec City, Que.
- Dr. D. T. Wayne, Charlottetown, P.E.I.
- Dr. Don W. Gullett, Secretary, Toronto, Ont.

PAST-PRESIDENTS:

- Dr. J. S. Bagnall, Halifax, N.S.
- Dr. M. H. Garvin, Winnipeg, Man.
- Dr. A. W. Faulkner, Halifax, N.S.
- Dr. G. L. Cameron, Swift Current, Sask.
- Dr. R. L. Pallen, Vancouver, B.C.
- Dr. Harvey W. Reid, Toronto, Ont.
- Dr. W. W. Woodbury, Halifax, N.S.
- Dr. A. L. Walsh, Montreal, Que.

EDITORS:

- Dr. M. H. Garvin, Winnipeg, Man., Editor
- Dr. G. de Montigny, Montreal, Que.
—French Editor
- Dr. T. R. Marshall, Toronto, Ont.
—Assistant Editor

CHAIRMEN OF COMMITTEES:

- Dr. R. P. Lowery, Toronto, Ont.
- Dr. Hugh Eaton, Halifax, N.S.
- Dr. R. G. Ellis, Toronto, Ont.
- Dr. E. Charron, Montreal, Que.
- Dr. J. A. Bothwell, Toronto, Ont.
- Dr. C. A. E. McCabe, Valleyfield, Que.

REPRESENTING FEDERAL GOVERNMENT DEPARTMENTS:

- Dr. George L. Cameron
—Dept. of Veterans Affairs
- Dr. H. K. Brown
—Dept. of National Health & Welfare
- Colonel E. M. Wansbrough
—Dept. of National Defence

MEMBERS:

- Dr. L. J. D. Fasken, Regina, Sask.
- Dr. F. C. Bonnell, Saint John, N.B.
- Dr. Harry S. Thomson, Toronto, Ont.
- Dr. P. G. Anderson, Toronto, Ont.
- Dr. R. G. Hemmerick, Kitchener, Ont.
- Dr. W. C. Oxner, Halifax, N.S.
- Dr. W. H. H. Beckwith, Halifax, N.S.
and several others.

General Meeting

A general meeting of the Association was held in The Pines Hotel, Digby, on Tuesday, June 24, at 4.30 p.m., when the retiring President, Dr. V. D. Crowe, presented his valedictory address. Dean W. W. Woodbury installed the new President, Dr. J. K. Carver, Montreal, in office and presented Dr. Crowe with his Past-President's badge. The meeting was then opened for discussion at which time several members expressed appreciation of the work of the Association.

At a subsequent general meeting held in the theatre, Honorary Membership was conferred upon Dr. J. Stanley Bagnall. Dr. Rooney, Edmonton, and Dr. Pallen, Vancouver, presented the resolution, speaking in glowing terms of the contribution made to Canadian Dentistry by Dr. Bagnall over a great number of years. President Crowe presented the certificate after which Dr. Bagnall expressed his appreciation of the honour conferred upon him.

1947-48 Officials

The officials elected for the ensuing year are as follows:

- President*—Dr. J. K. Carver, Montreal, Que.
- Immediate Past-President*—Dr. V. D. Crowe, Truro, N.S.

Vice-President—Dr. H. J. Merkeley, Winnipeg, Man.

Secretary-Treasurer—Dr. Don W. Gullett, Toronto, Ont.

Executive Committee—Dr. J. K. Carver, Montreal, Que.; Dr. V. D. Crowe, Truro, N.S.; Dr. G. Ratté, Quebec City, Que.; Dr. H. J. Merkeley, Winnipeg, Man.; Dr. J. F. Giffen, London, Ont.; Dr. Don W. Gullett, Toronto, Ont.

Necrology Report

Your Committee reports with regret the loss of the following members: Adams, G. W., Danville, Richmond, Que.; Ault, James Wesley, Prescott, Ont.; Austin, Hugh Sutherland, Acton, Ont.; Beaulieu, Eugene, Quebec, Que.; Bertrand, O. H., Calgary, Alta.; Bowles, Manly, Winnipeg, Man.; Butler, F. A., Mission, B.C.; Cinq-Mars, G., Quebec, Que.; Clairoux, I., Montreal, Que.; Coates, John Warren, Bradford, Ont.; Currie, Thomas Alexander, Toronto, Ont.; Daly, Jasper J., Sussex, N.B.; Duguay, L., Lake St. John, Que.; Fletcher, C. M., Lethbridge, Alta.; Fluhman, M., Montreal, Que.; Follick, E. R., Vancouver, B.C.; Galloway, William Henry, Blenheim, Ont.; Gaudreau, S., Quebec, Que.; Gemeroy, G. Alex., Edmonton, Alta.; Gower, Frederick L., Meaford, Ont.; Green, C. B., Montague, P.E.I.; Hebert, J. E., Val d'Or, Abitibi, Que.; Hobbs, Harry Elmer, Toronto, Ont.; Hudson, Vernon, Moncton, N.B.; Hull, Richard William, Toronto, Ont.; Jeffs, Walter Thomas, Dresden, Ont.; Kinsman, Harry Miles, Hamilton, Ont.; Kolber, M., Montreal, Que.; Loucks, Harry Ross, Cobourg, Ont.; Lumsden, Colin Archibald, Ottawa, Ont.; McComb, Calvin Seabert, Port Arthur, Ont.; McDonald, James Francis, Hamilton, Ont.; McGrory, Francis Stephen, Cardinal, Ont.; McLean, E. G., Cambridge, N.B.; McVey, Kenneth McLeod, Toronto, Ont.; Moulson, H., Saskatoon, Sask.; Moyer, W. M., Prince Albert, Sask.; Munroe, H. J., Westmount, Que.; Paterson, Thomas Robertson, Almonte, Ont.; Pigeon, H., Montreal, Que.; Porter, James Roy, Toronto, Ont.; Price, O. B., Moncton, N.B.; Revell, John, Ponoka, Alta.; Reynolds, William Reginald, Toronto, Ont.; Romer, Jacob, Toronto, Ont.; Romph, William Edward, Hamilton, Ont.; Roulston, George Fulton, Exeter, Ont.; Schmeltz, Elmer Frederick, Simcoe, Ont.; Shannon, James

Adams, Sault Ste. Marie, Ont.; Sproule, Beverley, Moncton, N.B.; Steinberg, A., Address Unknown; Tepoorten, F. D., Vancouver, B.C.; Thomas, Mitchell Albert Ross, Toronto, Ont.; Turner, Dwight Mason, Oakville, Ont.; Vaughan, H. G., Chatham, N.B.; Verner, P., Montreal, Que.; Woodbury, K. F., Halifax, N.S.; Young, William Shrewsbury, Waterloo, Ont.

Reports — Annual Meeting Board of Governors

Report of President

In presenting his report, Dr. Crowe thanked all those who had so generously contributed so much time and effort to the work during the year. He summarized briefly the accomplishments of the year. In accepting the report appreciation was expressed to the President for his strenuous year of effort on behalf of the profession.

Report of Secretary

The following points were presented in the Secretary's Report:

1. The need for published information respecting dentistry as a vocation.
2. Suggested the appointment of a special committee to study group insurance.
3. Recommended the following statements to be adopted as representing the policy of the Association in respect to collective bargaining:
 1. The Association objects in principle to professional men being compelled to join a trade union. Dentists already have their own Association and all dentists contribute membership fees.
 2. Existing dental organizations are fully capable of obtaining all the results and providing all the functions which are expected to follow from membership in a trade union.
 3. The constitution of their associations which necessarily follow the ethics of the profession, prohibit dentists from subjecting themselves to the possibility of becoming liable to take orders from a trade union, in which professional members would necessarily be a negligible minority numerically.
 4. Working conditions, rates of pay and principles of promotion or advancement in the case of dental practitioners can

only be adequately dealt with by experts trained in the dental profession, who will consider public interests as well as the interests of individual dentists. No union organizer possesses the training to enable the intelligent handling of these matters.

5. The importance of seniority, which is one of the keystones of union policy, must be secondary to skill and ability in professional careers.
6. Compelling all industrial employees, as a condition of their employment, to join, or even give financial support to, one designated union, is indicative of a trend towards totalitarianism, which is just as undesirable from the point of view of unions as it is from the point of view of employees and of the public who are interested in the maintenance of democratic principles and practice. A professional man is by inclination and training essentially an individualist. Insistence upon dentists joining a union to which they object in principle would discourage the best type of professional man from entering any service where union membership was demanded.
4. Requested that a further study be made respecting dental service in hospitals.
5. Reported continued action on income tax matters.
6. Reported an increase in membership.
7. The advantages of an annual national convention.
8. Information respecting membership in the Fédération Dentaire Internationale.
9. Courses in Dentistry for Children.
10. Opinion re D.V.A. fee schedule.
11. Publication of Membership List.
12. Request for an appointment of representative to National Cancer Institute of Canada.
13. Facts and figures relating to dental personnel.

Actions taken upon report:

1. Committee on Public Relations was instructed to prepare subject matter for publication on dentistry as a vocation.
2. Special committee to study plans for Group Life Insurance was appointed.
3. Suggested points re collective bargaining were adopted.
4. Special committee to study hospital dental

service was appointed.

5. Association solicitor requested to pursue further income tax matters, strongly urging that the Association should press for:
 - (a) A uniform interpretation by Inspectors of Taxation of the allowance that may be claimed by a dentist for the use of a car or for transportation expenses.
 - (b) Deductions from Taxable Income for expenditures for attendance at Society Meetings, Post-graduate studies and such related matters.
 - (c) Deductions from Taxable Income for expenditures for Membership Fees in Professional Organizations, by salaried dentists.
6. Instructions given to encourage Associate Membership.
7. It was suggested that the Secretary circulate the whole membership periodically with a News-Letter.
8. Ladies Auxiliary of London Dental Society was officially thanked for generous donation of \$1,048.55 for research.
9. Official representation of the Association at the meeting of the Fédération Dentaire Internationale at Boston in August next was sanctioned.
10. Recommendation that all government departments be urged to adopt the D.V.A. Fee Schedule and further effort will be made to obtain an increase on certain items.
11. The facts respecting dental personnel were noted and as an aid toward solution the following suggestions were made:
 - (a) That the provincial registrars be urged to compile mimeographed data respecting opportunities and advantages for setting up practice within the province for periodic circulation within their province.
 - (b) That some consideration should be given to urging the Governments to subsidize the enlarging of dental schools where necessary. In addition to this it is felt that it might be considered advisable for the Governments to offer Studentships through the universities for under-graduates who would agree to set up practice in the depleted areas upon graduation and there remain for a predetermined period.

Report of Treasurer

The Treasurer's report indicated that increased provincial grants during the year had produced a balanced budget. Operating costs have risen with the times and consequently it has not been possible to attempt new projects

deemed necessary. The 1946 Convention yielded a profit to the Association of \$831.15 which cannot be considered as an annual source of revenue as the Association is not following a policy of making a profit from this source.

The Auditor's Statement for the year ending December 31, 1946, follows:

CANADIAN DENTAL ASSOCIATION
Balance Sheet, December 31, 1946

ASSETS			
CURRENT ASSETS:			
Cash on hand and in bank, general account	\$7,244.47		
Dominion of Canada bonds, 3%, at cost (market value \$19,332.50)	18,621.87		
Interest accrued on bonds	145.00	25,991.34	
CASH IN SPECIAL BANK ACCOUNTS:			
War Memorial Fund	7,626.71		
Dental Research Committee	4,077.59	11,704.30	
FIXED ASSETS:			
Office Furniture and Fixtures	1,143.71		
Less Reserve for Depreciation	357.32	786.39	
DEFERRED CHARGES:			
Expenses re 1947 Convention		119.17	
			\$38,601.20
 LIABILITIES			
 SURPLUSES:			
General Account		26,896.90	
War Memorial Fund		7,626.71	
Dental Research Committee		4,077.59	
			\$38,601.20

General Revenue and Expenditure Account
Year ended December 31, 1946

REVENUE	
Grants from Provincial Boards:	
British Columbia	\$1,572.00
Alberta	1,330.00
Saskatchewan	768.00
Manitoba	1,250.00
Ontario	10,165.00
Quebec	3,588.00
New Brunswick	424.00
Nova Scotia	995.00
Prince Edward Island	140.00
20,232.00	

Canadian Dental Association:

Re 1946 Convention Fees	620.00	
Re Surplus from 1946 Convention	211.15	
Transfer from the Committee on Publications on account of Net Surplus, 1946 and Prior Periods.....	3,578.09	
Interest on Bonds	491.03	
Sale of Pamphlets	5.00	
Sundry Revenue	45.00	25,182.27

EXPENDITURE

Grants:

Canadian Dental Hygiene Council	\$ 300.00	
The Committee on Publications	4,500.00	
Dental Research Committee	1,000.00	5,800.00
Secretary's Honorarium	3,000.00	
Clerical Assistance	2,905.93	
Unemployment Insurance	61.92	
War Memorial Committee Expenses	464.10	
Other Committee Expenses	1,538.66	
Officers' Expenses	1,324.94	
Board of Governors Meeting Expenses	2,619.02	
Pamphlets and Reports	195.31	
Canadian Welfare Council, Membership	5.00	
Stationery and Office Expense	970.49	
Telephone and Telegraph	138.26	
Postage	416.59	
Depreciation, office furniture and fixtures	114.37	19,554.59
<i>Net surplus for year</i>		\$5,627.68

GENERAL SURPLUS ACCOUNT

Year ended December 31, 1946

Surplus, December 31, 1945	\$21,388.96
Net surplus for year, brought forward	5,627.68
	27,016.64
Less Amount transferred to Dental Research Committee surplus	119.74
<i>Surplus, December 31, 1946</i>	\$26,896.90

CANADIAN DENTAL ASSOCIATION
WAR MEMORIAL FUNDRevenue and Surplus Account
Year ended December 31, 1946

Donations	\$7,603.80
Bank Interest	22.91
<i>Surplus, December 31, 1946</i>	\$7,626.71

CANADIAN DENTAL ASSOCIATION
DENTAL RESEARCH COMMITTEE

Revenue and Expenditure Account
Year ended December 31, 1946

REVENUES

Grants:

Dominion Dental Council	1,000.00
Canadian Dental Association, from general account	1,000.00
Interest	7.29
	\$2,007.29

EXPENDITURES

Sundry expenses	49.44
Net surplus for year	\$1,957.85

SURPLUS ACCOUNT

Year ended December 31, 1946

Balance, December 31, 1945	2,000.00
Net surplus for year, brought down	1,957.85
Transfer from general surplus	119.74
Surplus, December 31, 1946	\$4,077.59

AUDITOR'S CERTIFICATE

We have audited the accounts of the Canadian Dental Association for the year ended December 31, 1946, and report that, in our opinion, the above balance sheet is properly drawn up so as to exhibit a true and correct view of the financial position of the Association as at December 31, 1946, according to the best of our information and the explanations given us, and as shown by the books.

THORNE, MULHOLLAND, HOWSON & MCPHERSON
Chartered Accountants

Report of Executive Committee

The minutes of the Executive Committee were presented for ratification. Action has been taken during the year upon a great many matters, chief of which were the following:

1. Official representation at the A.D.A.-F.D.I. meeting in August in Boston including a reception to representatives of the British Dental Association in attendance.
2. Acceptance of invitation to hold 1948 Meeting in Quebec.
3. Professional standing of federally employed dentists.
4. Adoption of D.V.A. Schedule of Fees by other departments of government.
5. Consideration of granting honorary membership.
6. Administration of War Memorial Scholarship.

7. Proposed amendment to Constitutional By-laws.
8. Consideration of Proposed Draft Bill "The Industrial Relations & Disputes Investigation Act, 1947".
9. Admission of foreign dentists.
10. Endorsation of the principle of calling periodic meetings of Public Health Dentists.
11. Adoption of proposed plans for 1947 Convention.
12. Interim reports of various committees.
13. The publication of corrected lists of members.
14. Matters relating to Income Tax.

All of which was approved. It was urged that as many members as possible attend the international meeting at Boston, that federally employed dentists maintain their professional

standing; that all influence be used to have all departments of the federal government adopt the D.V.A. Fee Schedule and that encouragement and support be given to the development of scholarships.

Report of Finance Committee

The report outlined the increased work of the Association and emphasized the fact that worthy projects must be neglected in order to keep within the means available. The budget for 1947 was presented with a deficit of \$5,388.62.

In consideration of the report the President and Secretary were directed to visit all provinces. It was pointed out that increased grants for 1947 were indicated but it would be difficult to balance the budget until 1948 when the larger grants would become effective.

Report of Committee on Publications

The report outlined proposed improvements of the Journal in respect to increased size, the introduction of more colour and re-arrangement of content. Owing to increased publishing costs more revenue is essential to produce the Journal. A budget for 1948 was adopted allowing a considerably larger grant from the Association.

The Business Manager of the Journal presented statistics respecting circulation, advertising and the finances of the Journal. Two 20 per cent increases in publishing costs occurred during the year 1946-47 owing to increased labour and paper costs. After a careful survey of the advertising field it was decided that no further increase in advertising rates should be made at present.

Dr. Garvin, as Editor, reported the difficulty of handling the available text in the allotted space and until the Journal is financially supported more adequately the difficulty will remain. He advised a geographical representation on the Committee on Publications and the addition of the various editors to the committee in some way so that meetings of all actively engaged in the work of the Journal could be held from time to time.

Dr. de Montigny, French Editor, reported the great need of more space. It is his desire to carry more items respecting the Association and advised the issuing of circulars and news items from headquarters in French as only in

this way can our French speaking members be made acquainted with the work of the Association. The value of the bilingual Journal is shown by the increasing international interest. He recommended that effort be made to advance the date of publication.

With the exception of the point that the Committee on Publications be re-arranged all these recommendations were concurred in by the Board. It was considered advisable to delay any change in the make up of the committee for the present, at least, except to add the editors in an advisory capacity.

Report of Dental Services Committee

This committee has to do with the federal dental services.

The report dealt with the details of an effort to establish a more equitable basis in the Royal Canadian Dental Corps in respect to:

1. Additional "Responsibility Pay".
2. Age limits for service.
3. Short-term Commissions.

The first of these objectives has now been attained.

During the year the matter of unification of federal dental health services was considered but no action taken.

Problems relating to D.V.A. Post-Discharge Treatment were presented and dealt with by the committee through the amicable relationship which exists between the Association and the department. Consideration has been given to special items in the fee schedule.

A partial solution to the question of the professional standing of federally employed dentists was achieved.

The actions of the committee were endorsed by the Board.

Report of Program Committee

A complete report and budget for the Convention was presented and approved. The Committee was congratulated upon the arrangements for the Convention which proved to be a most successful one.

Report of Committee on Auxiliary Services

This report continued the study of Auxiliary Services presented last year and summarized the changes which have taken place during the past year throughout different countries. The number of technicians has greatly in-

creased as a result of wartime training and in turn there are more dental laboratories in existence now than ever before. In many cases the training of the personnel and the equipment of laboratories are not sufficient to meet the exacting demands of the profession — a situation which is conducive to illegal practice.

Legislation introducing hygienists continues to be enacted. A definition regulating the practice of hygienists is badly needed.

Instructions were given that proper information respecting the present position of auxiliary personnel be prepared for the use of Corporate Members.

Report of Committee on Dental Health and Public Relations

The need for properly prepared literature was stressed and recommendation made that the partial services of a capable individual be secured for this purpose. The splendid co-operation of the Dental Division of the Department of National Health & Welfare was reported wherein facilities are available to the Association to greatly increase the effectiveness of the work of the Committee.

Report of the Committee on By-Laws

A study of the proposed amendment which appeared in the March issue of the Journal was reported and recommendation made that the same be rejected.

The report was approved.

Report of Rehabilitation Committee

Final report was made by the Committee stating that the work of the past year had been of an advisory nature. Four recommendations were presented and adopted:

1. That the Board of Governors commend the Secretary upon the annual survey of Canadian dentists and further recommend that this survey be continued.
2. That should a future emergency require the mobilization of manpower, the C.D.A. co-operate with other health organizations.
3. That in such an emergency all dentists be fixed in their locations in order that a balance between emergency and civilian dental needs may be maintained.
4. That the Committee on Rehabilitation be discharged.

The report was approved.

Report of Ethics Committee

The Committee reported that no matter had been brought to its attention during the year.

Report of Research Committee

The Committee has devoted its attention to the development of suitable personnel for research. Financial aid for research projects is available but properly trained personnel is difficult to secure. Studentships have been established by the committee for the purpose of training personnel for research.

Report of Committee on Legislation

No major changes in legislation were reported from the province this year. The proposal to change the professional acts in Saskatchewan was reported to be now discarded. Alberta has instituted an act whereby dental treatment services (except prosthetic services) are to be rendered to pensioners. Several provinces are considering legislation to introduce dental hygienists. Proposed bargaining legislation, to include members of professions, was reported to be most disturbing.

Report of Committee on Health Insurance

In general the movement toward the introduction of national health insurance has not advanced appreciably on this continent during the past year. The National Health Services Act in Great Britain has now become law and will go into operation next year. In the United States several bills are before Congress but none have progressed far. Several countries have introduced measures, most of which are either partial coverage in nature or additions to that in existence.

By actual experiment during the last year it has been proven that education must precede dental care if it is to be effectual. The dental health of a community can be tremendously improved by the institution of proper educational measures.

Ways and means must be found to make necessary changes in dental practice to the end that preventive services form a larger part. The best assurance against coercive measures is to forestall them by accomplishing the objectives in a voluntary manner.

Report of Advisory Committee

The Advisory Committee during the past

year undertook the arduous task of drawing up terms of reference for all committees and presented a complete report which was adopted with slight amendments.

Report of Committee on International Relations

An exchange of information with numerous national organizations has occurred which has been most beneficial. A study was made of a proposal for the sending of teachers for short periods to China and the accommodating of Chinese students in Canadian dental schools. It was felt that agreement to this plan should first be made between the governments concerned and then our facilities should be offered. The *Fédération Dentaire Internationale* will present plans in the near future for strengthening that organization on a world-wide basis.

Report of Committee on Nomenclature

Questions of spelling gave the committee concern in an effort to achieve uniformity of spelling for use in the *Journal*. The adoption of one dictionary would be necessary in order to settle the matter. Debate has occurred respecting whether "auxiliary" or "ancillary" is the correct word to use in referring to assisting dental personnel. Ruling was made that "auxiliary" is the better word for use in Canada as it means the same in both French and English. Even the correct pronunciation of the word "Nomenclature" was given consideration by the Committee.

Report of Council on Dental Education

Progress was reported on several matters being studied by the Council including: the training of dental hygienists; hospital internships; minimum curriculum for Canadian dental schools and the establishment of a national board of dental examiners. It is hoped to make a completed report on some of these subjects next year.

Recommendation was made that an expert in general education should be engaged to assist in the work confronting the Council.

Report of Industrial Dentistry Committee

In cooperation with the Department of National Health and Welfare the Committee has partially completed a survey of some 15,000 industries respecting dental services in

industry. A progress report of this survey was presented. Many industrial concerns have expressed desire for information respecting the instituting of proper dental services and to this end the Committee was directed to prepare a suitable booklet on the subject for distribution.

Report on War Memorial Fund

The total amount collected to date was reported to be \$8,143.80. Direction was given to invest this money in trust funds. The income is to be used for the establishment of the War Memorial Scholarship. It was determined to leave the fund open for further contributions.

Report of Scholarship Committee

A pro-tem committee was organized last March in order to prepare the terms of award of the War Memorial Scholarship so that the award could be made effective for the coming scholastic year.

Recommendations were submitted and after amendment the following were adopted:

Recommendations:

1. That the Association bear the expense of administration.
2. That three judges be appointed annually by the Committee on Scholarships, one of whom shall appraise the composition, either English or French, as the case may be, and the other two shall assess the content.
3. That each judge submit an independent written report on each essay.
4. That the name of the author of the winning essay be announced at the Meeting of the C.D.A.
5. That the Committee on Scholarships be responsible for the submission of the title for the essay each year, on or before August 1st.
6. That a committee of five members be appointed, to be known as the Committee on Scholarships for the purpose of administering this scholarship.
7. That the Committee have the power to withhold the granting of any award in any given year.

Conditions of Awards:

1. The contest is open to all undergraduates of the final year who have been in attendance for at least two years at Canadian Dental Schools.

- 2. The subject for the essay will be announced by the Scholarship Committee of the Canadian Dental Association to the Dean of each school on or before September 30th of each year.
- 3. The Faculty Staff of each school will be responsible for the selection and submission of a maximum of three essays upon the named subject on or before April 25 of each year.
- 4. The essay may be written in either English or French.
- 5. The essay shall consist of from 2,500 to 3,000 words. The manuscript must be the original one, typewritten, double spaced on one side of the paper with liberal margins.
- 6. When photographs are used they must be glossy prints which permit of reproduction.
- 7. All references and bibliography must be stated at the end of the essay. All

- quotations must be indicated. They should be numbered and appear in the same order as that of the superior figures in the appropriate position in the text.
 - 8. Three judges will be appointed by the Committee on Scholarships of the Canadian Dental Association, each of whom will make an independent report upon each essay submitted. The decision of the judges will be final.
 - 9. The basis of judging the essays will be:
 - 70% for content
 - 20% for composition
 - 10% for bibliography.
 - 10. In the event that no submitted essay is deemed worthy of award in the opinion of the judge in any one year no award will be made for that year.
 - 11. All submitted essays become the property of the Canadian Dental Association.
- 211 Huron Street, Toronto, Ontario, July 17, 1947.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA

Vancouver Dental Assistants' Association

A word to the wise is sufficient so the saying goes, but here's a word to those girls who have not been wise enough to attend the regular monthly meetings! On May 12, the members had a real treat when Mr. Dickson of Dickson Fine Arts spoke on "The History of Pottery and Fine China". Mr. Dickson, a very excellent speaker, highlighted his talk with samples of beautiful dinnerware which were passed around for all to see and which added much to the interest and variety of the meeting. It is hoped that there will be another opportunity to hear Mr. Dickson.

At this meeting the resignation of the president, Miss Rita Cowan was accepted since she has shed the responsibility of an Executive role to take on the greater responsibility of marriage and a home. Very best wishes were extended to Rita in her new venture but she will be greatly missed.

The next noteworthy event was the Convention held on June 13-14. The most notable feature was the fact that it was the first of its kind in the history of British Columbia. Never

before have so many of the B.C. dental assistants met under one roof for a common cause and never before has there been a provincial organization.

As a result of the combined efforts of the Victoria and Vancouver Associations—the only two organized dental assistants groups in B.C.—some eighty-five girls from all parts of the province met in a two-day convention packed full of informative and educational lectures, clinics and displays. Outstanding in this part of the program was the excellent course on radiography given by Mrs. Wynne Saunders of the X-ray Department, Oregon Dental College, Portland, Oregon. The knowledge and personality of the speaker contributed much to the success of the Convention.

The greatest achievement of the meeting was the inauguration of a British Columbia Association and the untiring effort and hard work put forth by the girls responsible for this success is certainly worthy of sincere appreciation and praise. Officers elected are as follows:

- President Marjorie Bagley, Victoria.
- Vice-President Marion Beevers, New Westminster.
- Secretary Jean Fraser, Victoria.
- Treasurer Pearl Eckley, Vancouver.

There is now a province-wide organization with a paid-up membership the first day of twenty-six! So the Association is off to a flying start and it's up to every assistant to keep it going! So make a New Year's resolution now to meet in Victoria, B.C.'s capital, in June 1948.

MANITOBA

Medical Service

"The Manitoba Medical Service operated at a loss of \$148,471 during 1946 which was absorbed by medical men of the province according to Dr. Digby Wheeler, treasurer, in submitting the financial statement of the service for the past year. The service is designed to give full payment of the doctor's bill for care and treatment supplied by a medical member to the family subscriber whose average yearly earnings are under \$3,000, and a proportion for those in higher brackets.

"The service is still in the experimental stage, Dr. Wheeler pointed out, and nearly 36,000 persons are participating. These include 16,185 subscribers and 19,604 dependents. Members of the service had accounts to \$457,803.43 during 1946 of which \$309,331.62 was paid by the service. Total income of the service amounted to \$366,361.62 during the year of which \$364,385.59 was earned subscriptions and sundry accounts of \$1,976.03"—*Manitoba Medical Review* 27:393 June, 1947, per *Public Health Economics*.

ONTARIO

Voluntary Medical Care Insurance

"After several years of discussion and consideration of various proposals, the Ontario Medical Association agreed by an overwhelming majority at the annual meeting in May to proceed immediately with the setting up of a province-wide plan of voluntary medical care insurance.

"Way was paved for the taking of action by a special committee under the chairmanship of Dr. Melville Watson. Dr. Watson's committee recommended the incorporation of a separate body empowered to provide medical care with or without ancillary services on a prepayment basis and to amalgamate and unify if possible all existing medical prepayment service plans.

"It is recommended that subscribers be accepted on a group basis; that consideration be given to individual contracts, and that two plans be sold at the outset, a complete coverage plan and a surgical and /or obstetrical plan. It is further recommended that the Corporation cooperate with the Blue Cross Plan to provide hospital care.

"The Committee has suggested that there be a waiting period on chronic and pre-existing conditions in individual contracts but not in group contracts; that conditions or individuals covered by compensation or the governmental agencies, that contravene the Criminal Code, that are not detrimental to bodily health, that require treatment in tuberculosis or mental institutions, or that are due to alcoholism, drug addiction or venereal disease be excluded; that refractions as such only and dental care be not included; and that preventive medical examinations be permissible after twelve months' participation."—*Canadian Hospital* 24:30, June, 1947, per *Public Health Economics*.

Northern Ontario Dental Association

The annual meeting of this Society was held in Kirkland Lake on September 6. President Dr. Perc Hill and secretary Dr. Norman Doner carried out a very full program arranged for the day. They were assisted as hosts by Dr. Jim Robson and Dr. Douglas Hill, president and secretary of the Kirkland Lake district and their colleagues.

Kirkland Lake is one of the larger cities of Northern Ontario with a population of about 20,000. It is ideally located for this meeting, frequently spoken of as the "Hub of the North" and it is unique in that there are 8 producing gold mines within its boundaries.

There were 50 dentists and guests of the society registered together with 22 ladies. The following places were represented—Ansonville, Copper Cliff, Blind River, Cobalt, Cobden, Haileybury, Larder Lake, North Bay, Schumacher, Sudbury, Timmins and Toronto. Guests from Toronto were Dr. R. G. Ellis, dean, Faculty of Dentistry, University of Toronto; Dr. Don W. Gullett, secretary, Canadian Dental Association; Dr. R. E. Diprose, Faculty of Dentistry; Dr. Harold Swales,

Dental Public Health Committee and the writer representing the Journal of the Canadian Dental Association.

The program for the day was arranged to provide instruction, fellowship and an opportunity for sociability and a good evening's fun. Dr. Swales was the luncheon speaker and he presented the approach his committee was making to further interest in combatting dental diseases among children. He emphasized the necessity for dental societies in the various districts taking an active part in dental health education. Dr. R. E. Diprose presented an illustrated lecture in dental x-ray interpretation and gave a discussion of a variety of lesions demonstrated in his films. For example it was his opinion focal infection had nothing to do with bone change associated with arthritis; it was a factor to be considered in case of muscular pain. Again sclerotic bone about non-vital teeth was evidence of infection and this condition was conducive to slow healing process after extraction and symptoms associated with so called "Dry Socket."

Dr. Don Gullett briefly discussed professional problems receiving attention of the leaders in Dentistry to-day. He reviewed dental history for the past 100 years pointing out its beginning as largely a mechanical phase. Since the turn of the present century biologic aspects have been influencing both dental teaching and practice more and more and undoubtedly the future holds even more emphasis in the biologic approach. In connection with National health service he stated he was more convinced than ever that the approach made by the Canadian Dental Association was still in the best interest of everyone. Research, Education and Dental Care, these three phases while proceeding simultaneously, must be emphasized in the order named.

The day's activities closed by a banquet and dance with Mr. and Mrs. Perc Hill as hosts. This function was held at Kirkland Lake Golf and Country Club. And what a party it was! Good food, good entertainment and good fun. After dinner speeches by Reeve Anne Shipley and Dean Ellis started everything off in good humour, then Dr. and Mrs. Archie Boyd and their associates in the orchestra carried on from there and their enthusiasm seemed to know no bounds.

The meeting will be remembered as a gala day and an occasion to be anticipated with profit and pleasure again in 1948.

It was decided to hold next year's meeting on the first Saturday following Labour Day and at Haileybury.

The new officers are:

Pres. Dr. W. R. Somerville, Haileybury
Vice-Pres. Dr. Ralph Foster, North Bay
Sec.-Treas. Dr. Willard Armstrong, North Bay

Dental Public Health representatives are:

Dr. I. T. Brill Timmins
Dr. A. R. Kaukinen Sudbury
Dr. G. W. Bergman Kirkland Lake

Dean Ellis to be Honoured

A dinner will be held in honour of Dr. R. G. Ellis, newly appointed Dean of the Faculty of Dentistry, University of Toronto, on Friday, November 14, 1947, in the Crystal Ball Room of the King Edward Hotel, Toronto at 7.00 p.m. All graduates invited.

F.A.C.D. Conferred

At a recent meeting of the American College of Dentists, Dr. Harvey W. Reid, Dr. P. G. Anderson and Dr. E. A. Grant were elected fellows of the College. This coveted award is justly merited by the splendid contribution made by each of these well known and highly regarded Canadian colleagues. It is a satisfaction that their efforts have been thus so generously recognized.

Academy of Dentistry, Toronto

The annual dinner of this Association will be held on October 20 at the Royal York Hotel, Toronto at 6.30 p.m.

Senator T. D. Bouchard of St. Hyacinthe, Quebec, will be the guest speaker.

QUEBEC

Surgical and Medical Coverage

"The Quebec Hospital Service Association started offering surgical and medical coverage to certificate holders effective January 1, 1947. During the first month 20,498 persons purchased coverage under the surgical plan and 12,687 were protected under the medical plan."
—Public Health Economics.

EMPIRE NEWS**AUSTRALIA****Social Services**

"The minister of health and social services in the commonwealth government said in Sydney recently that the free medical services envisaged under the referendum were from ten to fifteen years distant. Plans at the moment were almost non-existent. The commonwealth had to face shortages of materials, equipment and personnel as well as the difficulty of agreeing on doctors' payments. The free medical services scheme called for an institute for training doctors, nurses and administrators; pathologic laboratories; x-ray, maternity, gynecologic and tuberculosis hospitals; research institutes; the manufacture, sale and distribution of medical equipment, and provision of specialist services. A vast increase in the demand for better hospitals would call for hospital administrators of a high calibre."

—*J. of the American Medical Association*

134:624, June 14, 1947, per Public Health Economics.

GREAT BRITAIN**State Medicine**

It is reported that British doctors have obtained some concessions from the government in the plan for state medicine as follows.

Physicians will have the right to participate in the plan or not as they wish. They can be full-time employees, or work on part time for the government or continue in private practice.

Those who participate in the plan will be paid a salary plus a fee for each service rendered.

Medical men will not be allowed to start up in districts adequately supplied by physicians but will have a choice of other districts.

Some have prophesied that only a small number of doctors will enter the government service. A majority voted previously as opposed to any negotiations whatsoever.

GENERAL NEWS**The Dentist Manpower Problem in California**

by Willard C. Fleming

Dean College of Dentistry, Univ. of California
Condensed from Jour. of Cal. S. Dental Association

It is generally conceded that there is about 100 per cent *need* for dental service by the entire population. On the other hand, the *demand* for dental service is made by only a percentage of the population. Two major factors are responsible for this discrepancy between need and demand: one is the cost of dental service, the other is the dislike for it, or if you wish, the lack of appreciation of the value of dental health. In a survey of over 8,500 white families, it was found that 15 per cent of them with incomes of less than \$2,000 received dental care, while 60 per cent of those with incomes of over \$10,000 received dental care. One may assume that in the latter group the cost of dental service was not an important deterrent.

In other words, as the economic barrier to dental service is lowered, we can expect an increasing demand. Evidence may be seen on all sides that ways and means are being devel-

oped to enable a greater number of people to pay for dental service.

The problem of dentist manpower shortage may be summarized as follows:

(1) It appears that the ratio of dentist to population is decreasing in California.

(2) The schools are barely able to keep up with the replacements of dentists at the 1940 level.

(3) The average age of dentists is increasing with a corresponding lowered productivity.

(4) The increasing population in California has not brought in enough dentists qualified to practise in this state.

(5) Linked with this, and aggravating the problem, is the increasing request for dental service. There is no evidence that this problem is of a temporary nature, but rather that it will become increasingly acute.

The solution of this problem is twofold. One is to determine the number of dentists per population that will best meet the needs of the people. The second is to devise ways and means to provide the necessary number of qualified dentists.



Photo by E. C. MCPHERSON, Public Relations Officer, C.P.R.

**BOARD OF GOVERNORS OF THE CANADIAN DENTAL ASSOCIATION
and some of the Past-Presidents, Committee Chairmen, and Representatives,
taken at Digby, Nova Scotia, June, 1947.**

From left to right, FRONT ROW: Arthur L. Walsh, Montreal; G. H. Campbell, Orangeville, Ont.; Harvey W. Reid, Toronto; Don. W. Gullett, Toronto; J. F. Giffen, London, Ont.; John A. Bothwell, Toronto. STANDING, left to right, W. M. Blair, Regina, Sask.; R. P. Lowery, Toronto; Ernest Charron, Montreal; Howard MacDonald, Saint John, N.B.; George C. Cameron, Ottawa; M. H. Garvin, Winnipeg; H. L. Field, Hamilton, Ont.; Col. E. M. Wansbrough, Ottawa; Gustave Ratté, Quebec, Que.; R. A. Rooney, Edmonton, Alta.; Howard J. Merkeley, Winnipeg; Roy G. Ellis, Toronto; Victor D. Crowe, Truro, N.S.; R. L. Pallen, Vancouver; J. K. Carver, Montreal; C. A. E. McCabe, Valleyfield, Que.; D. T. Wayne, Charlottetown, P.E.I.

What is the number of dentists needed in California? The armed services worked toward a ratio of one dentist per 500 men. Experience in dental practice indicates that one dentist can give adequate dental care to between 400 and 500 people per year. The Lea-Jones study shows one dentist per 1,000 of population is necessary.

If we were concerned only with providing for the *needs* of the people, a reasonably exact answer might be found. However, in civilian life we are faced with the request for service. It does not take a memory expert to recall that during the depression the ratio of one dentist per 1,100 people in California was more than adequate to meet the demand for service in those days. The ratio of dentists per population seems to be closely related to the economic status of the state as well as the value placed upon dental health by the people.

Predicting the future economic status of the people in California is analogous to using a prognathous chin to balance a crystal ball while sitting on a limb over the upper reaches

of a creek without a paddle. Regardless of these perils, the advice of our best economists and demographers should be sought.

It is not unlikely that they will recommend a ratio of dentists to population of one dentist per 1,000 population, instead of the present ratio of one to 1,450. This one to 1,000 ratio is not a figure picked at random, but is the results of some serious thought and will be cheerfully defended on request.

A.D.A. Boston Meeting

At the American Dental Association meeting held in Boston in August, representations of forty foreign countries were present, including India, China, Philippines and many South American countries.

It has been unofficially reported that not less than 16,000 were present, due in part to the joint meeting with the F.D.I.

The A.D.A. has become "big business" with a budget of over a million dollars, which is \$312,000 greater than present income.

There is a movement on foot to increase dues about \$10.00 per annum.

E. D. Coolidge Wins Callahan Memorial Award

The Callahan Memorial Award of the Ohio State Dental Society, a gold medal given annually to the person who makes contributions to dental science which are of very exceptional value, has been won this year by Edgar D. Coolidge, M.S., D.D.S., Professor of Therapeutics, Preventive Dentistry, and Oral Hygiene of the School of Dentistry of Loyola University.

Dr. Coolidge was honoured for his outstanding work in root canal therapy and periodontia.

A.D.A. Appointment Book

The new 1948 Appointment Book, published by the American Dental Association, is now available.

A number of exclusive features are included in the 1948 edition. A full week's appointments may be listed on a double page and provision is made for a patient recall system.

Copies may be secured at \$1.50 each from the American Dental Association, 222 East Superior St., Chicago.

Columbia Gives Graduate Dental Hygienist Courses

The School of Dental and Oral Surgery, Columbia University, gave postgraduate courses for registered dental hygienists June 9-20.

The first course was given in the mornings only and included lectures and demonstrations of newer concepts in mouth examination, x-ray technique, nutrition, materia medica, laboratory techniques, instrumentation and office management. The second course, given in afternoons only, consisted of lectures, demonstrations and field trips in methods and materials in dental health education, child psychology and psychology of human behaviour, and clinic management.

Record Attendance Noted at Dental Teachers Meeting

All previous attendance records were surpassed at the twenty-fourth annual meeting of the American Association of Dental Schools held June 23-25 at the Drake Hotel in Chicago. Approximately three hundred representatives from the forty dental schools registered for the conference.

Enrolment of Freshmen in U.S.A. Dental Schools

The anticipated enrolment of freshmen this fall in the dental schools of the U.S.A. is 3,022 as compared with 2,974 in 1946. This represents closely the maximum capacity of the schools.

Dentists' Health

"Good Health for the Dentist" was the subject discussed at the last meeting of the Chicago Dental Society.

Dr. Louie P. Austin of the Mayo Clinic statistically reviewed the two hundred and seventy-three cases of dentists registered at the Clinic in 1940. He concluded that dentists were reasonably healthy and suffered from no specific occupational disease trends.

Dr. Fremont A. Chandler held that there was no true occupational disease of dentists, that their diseases are the same as any other indoor worker, summarizing them as atrophy from lack of exercise.

Dr. Chauncey Maher stated that increased life expectancy brings about an increase in degenerative heart disease. Dr. Maher does not approve of the treatment of hypertension by sympathetic resection. He stated that the use of drugs is limited and of questionable value but that the elimination of fatigue is imperative. He said also that there was no such thing as cholesterol free diet. Further that in rheumatic valve disease a recurrence in middle life should be guarded against. Dr. Maher concluded by stating that the four essential methods are to check for goitre and gall bladder disease, avoid fatigue, and get plenty of sunshine.—*FT. REV. of Chi. D. Soc.*

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

SEPTEMBRE 1947

NO 9

Complications Post-Opératoires*

par A. E. VOISARD, L.D.C., D.D.S., Outremont, P. Qué.

Le traitement du patient fraîchement opéré est une phase importante de notre travail. Peu importe le succès opératoire de l'intervention, les suites immédiates du travail chirurgical guident souvent le patient dans son appréciation des traitements reçus. L'état psychique et physique du malade, après un acte chirurgical, doit être surveillé et contrôlé. Les cas ordinaires d'extraction seront gardés au bureau jusqu'à coagulation complète du sang. Durant ce temps, on fixe le prochain rendez-vous et on donne des conseils, pour traiter à la maison, l'état des tissus buccaux. Pour s'éviter des répétitions, il sera bon de remettre des imprimés à cet effet.

Conseils pour le soin de la bouche

1°: Suivez à la lettre les conseils qui vous sont donnés.

2°: Si vos gencives saignent abondamment ou si elles saignent encore, après une heure, revenez à notre cabinet ou téléphonez avant 5.30 p.m.

3°: Si vous avez des douleurs, revenez ou appelez au bureau avant 5.30 p.m. Cette douleur peut être contrôlée.

4° Vous devez revenir le lendemain de votre opération et tous les jours suivants, jusqu'à ce qu'on vous donne votre congé.

5°: Nous désirons attirer votre attention sur les avantages des Rayons-X, avant et après votre opération.

L'assistante demande la signature du patient pour cette carte de conseils, afin de dégager la responsabilité du dentiste, si ce patient ne revient pas.

La radiographie post-opératoire révèle la présence d'épines osseuses, de corps étrangers, etc.

Cette manière de faire montre au patient que tout est mis en oeuvre pour son plus grand bien-être.

DOULEUR POST-OPERATOIRE

Les patients réagissent différemment à l'enflure post-opératoire, aux infections et à la douleur.

1°: La douleur est plus forte quand elle a son origine dans une région plus innervée.

2°: La douleur peut être occasionnée par une lésion à une branche du cinquième nerf crânien.

3°: La douleur peut naître d'une complication au sinus maxillaire.

4°: Un abcès amygdalien peut se former, à l'occasion d'une intervention chirurgicale dans la bouche, sur des amygdales infectées.

5°: Une douleur post-opératoire peut être la manifestation d'une réaction des tissus à l'invasion des nombreuses bactéries de la bouche.

IRRITATIONS CHIMIQUES

Une irritation chimique peut être causée par l'usage de médicaments

* Note de la rédaction: Cette communication n'est pas un exposé complet de la question; elle n'est qu'un résumé d'une conférence présentée par l'auteur.

violents ou par des traitements locaux trop prolongés.

TRAUMATISME

Ce sont des blessures occasionnées par des lésions aux tissus. L'étiologie du traumatisme peut-être classifiée dans les divisions suivantes:

- 1°: laceration des tissus.
- 2°: aiguilles hypodermiques émoussées.
- 3°: déchirement des tissus mous.
- 4°: écrasement de cellules osseuses.
- 5°: écartement des parois buccales et linguales.
- 6°: extraction forcée des dents.
- 7°: usage inconsidéré des fraises et de ciseaux.
- 8°: le traumatisme des tissus adjacents peut être la seule cause de douleur post-opératoire.

EXTRACTION DES DENTS

L'extraction des dents n'est pas une opération banale, qui peut être pratiquée de n'importe quelle manière et dans n'importe quel temps.

Quelques considérations sont nécessaires avant d'entreprendre une extraction. Voici quelques sujets de méditation susceptibles d'attirer l'attention du dentiste, avant son travail chirurgical.

- 1°: Extraction des dents durant la période aiguë d'une infection.
- 2°: Sort des racines et des apex laissés dans les alvéoles.
- 3°: Extraction incomplète des dents et des racines.
- 4°: Pulpes exposées dans les dents et les racines ou état septique qui se déclare dans une racine fracturée.
- 5°: Corps étrangers (racines, fragments d'obturations, morceaux de gutta-percha, aiguilles, instruments brisés, fraises, etc.)

- 6°: Procès alvéolaire irritant.
- 7°: Lésions aux nerfs qui donnent naissance à des douleurs réflexes et qui doivent être traitées par la physiothérapie.

Une opération bien faite est susceptible d'être gâchée par l'oubli de quelques détails, par exemple:

A—*Points de suture*, qui peuvent être trop serrés ou trop abondants.

B—*Mèche de drainage*, qui peut être trop longue ou trop volumineuse.

TRAITEMENTS

Un traitement efficace doit toujours être basé sur un diagnostic précis, sur la nature de la douleur et sa location. Les traitements sont de deux ordres:

1°: préventifs.

2°: curatifs.

Le traitement préventif consiste, dans ses grandes lignes, dans l'élimination de toute cause irritante.

Le traitement curatif peut être local (antiseptiques) et général (médicaments sédatif, guaiacol, thymol, iodures).

PHYSIOTHERAPIE

La physiothérapie est une médication basée sur des moyens physiques sans ingestion de médicaments, comme des sacs de glace, (pour prévenir l'enflure), chaleur irradiée, lampes à rayons infrarouges et ultra-violets et la diathermie.

ALVEOLITE OU "DRY SOCKET"

L'alvéolite est une inflammation et une infection des cellules osseuses entourant la dent, causées par une infection chronique de cette dent. Quand la dent est extraite, il se produit une irritation ressemblant à une ostéomyélite limitée à l'alvéole.

D'autres causes possibles sont:

- 1°: extraction d'une dent infectée dans son stage aigu.
 - 2°: traumatisme.
 - 3°: instruments septiques.
 - 4°: pénétration de salive dans l'alvéole.
 - 5°: infection virulente à l'apex de la dent.
 - 6°: extraction chez les patients agés.
 - 7°: succion de l'alvéole.
- Gardner nous dit que les régions les plus susceptibles aux alvéolites sont celles

des prémolaires et molaires des deux maxillaires.

TRAITEMENT DE L'ALVEOLITE

L'alvéolite est irriguée avec du peroxide d'hydrogène ou de permanganate de potasse et ensuite avec une solution physiologique salée chaude. L'alvéole est remplie de gaze iodoformée ou non, d'un demi-pouce de long.

Dans ce traitement, deux sont nécessaires :

1° : Antiseptie.

2° : Médication calmante comme le guaiacol, l'huile de faîne, créosote, huile de clou, huiles essentielles, iodures de thymol, orthoforme, eugénol, iode et des composés de ces substances, nommées ci-hauts, en se servant comme base d'huile de ricin, d'huile d'olive, glycérine et autres substances analogues.

Mead recommande la glycérine, le guaiacol, l'eugénol et l'iode en parties égales. Le pansement est renouvelé tous les jours et dans des cas graves, plusieurs fois par jour, pour calmer la douleur.

Mon traitement, qui me semble être spécifique est le suivant :

2 parties: sous-nitrate de bismuth

1 partie: iodoforme

1 partie: petrolatum liquid

30 grs.: acide acethyl-salicydique.

7.5 grs.: sulphathiazole

Dans un cas d'alvéolite bien établi, on recommande une substance escharotique pour détruire les cellules superficielles gangréneuses ou sclérotiques. Zimmer conseille quelques gouttes d'acide trichloracétique, traité spécialement par la dissolution de parties égales de thymol et de menthol. Une solution à 10% de chlorure de zinc est efficace.

PANSEMENTS POST-OPERATOIRES

L'usage de mèche est conseillé dans les cas suivants :

A—pour servir de rétention aux médicaments, qu'on introduit dans la cavité infectée.

B—pour empêcher la pénétration de nourriture et de corps étrangers.

C—pour prévenir l'hémorragie.

D—pour servir de drain et pour obvier à une fermeture trop rapide de la plaie.

Cette gaze a d'habitude un demi-pouce ou un pouce de largeur. On peut employer la gaze ordinaire, mais celle qui contient 10% d'iodoforme est préférable pour les cas où il y a du pus. Il faut changer ces mèches, toutes les 24 heures, excepté dans les cas d'hémorragie, où il faut les laisser 48 heures.

Quand il y a un bon drainage, il n'est pas nécessaire de mettre une gaze. Dans les cas purulents, même à un stage chronique, une mèche de gaze doit être mise dans la plaie. Dans les infections, et quand il y a mauvaise formation d'un caillot sanguin, il est besoin d'une gaze. L'extraction de dents vivantes, où l'alvéole étroite s'obture spontanément d'un caillot normal, ne demande pas de soins spéciaux. Il arrive parfois, que l'hémorragie continue après le temps normal de coagulation. Pour arrêter cet écoulement sanguin, différents moyens peuvent être mis en usage, tels que :

1° : Points de suture.

2° : Gazes imbibées d'huile de clou et d'acide tannique en poudre.

3° : Gazes saturées d'acide tannique seule et occlusion forcée.

4° : Sacs de glace sur la figure.

Des pansements de gaze doivent être placés dans tous les cas où se trouve du pus.

SOINS POST-OPÉRATOIRES

1—Les patients hystériques ont besoin de surveillance.

2—Les patients ne seront pas exposés au courant d'air et se reposeront dans une salle assombrie, dans une position reposante, la tête bien placée.

TRAITEMENTS A LA MAISON

On devra bien indiquer au patient, avant l'opération, les soins requis à la maison.

1303 ouest Bernard
Oulremont.

CHEZ NOUS ET AILLEURS

Société Dentaire des Trois-Rivières et du District

Les élections du Conseil de la Société Dentaire des Trois-Rivières et du District pour l'année 1947-1948 ont donné les résultats suivants: Président: Conrad Godin, Trois-Rivières; Président-Elu: Anatole Therrien, Shawinigan Falls; Vice-Président: Louis Lacoursière, Shawinigan Falls; Trésorier: Réal Lamothe, Cap-de-la-Madeleine; Secrétaire: Fernand Beaudoin, Trois-Rivières; Conseillers: Maurice Lafontaine, Drummondville, Robert Trudel, Louiseville, J. O. Cyr, Thetford-les-Mines, Edgar Larouche, Victoriaville, Herman Chatillon, Nicolet, Emile Venne, Grand'Mère, Maurice Morin, Plessisville; Aviseur: Roméo Beaudry, Trois-Rivières.

Traitements dentaires au personnel des forces armées

Plusieurs praticiens ont donné au personnel des forces armées canadiennes des soins dentaires, sans avoir été préalablement autorisés. Les autorités rappellent qu'une autorisation doit être obtenue, avant d'entreprendre des traitements aux membres de la Marine, Armée ou Aviation, de l'officier responsable du Corps Royal Dentaire Canadien de cette région.

Cette réglementation couvre tous les cas, excepté ceux qui s'appliquent:

- 1) Au soulagement d'une douleur pressante;
- 2) A la réparation d'une prothèse brisée (la réfaction ou le changement d'une prothèse n'est pas permis).

Les officiers en charge sont les suivants:

- a) Pour les provinces de Nouvelle-Ecosse, Nouveau-Brunswick, Ile-du-Prince-Edouard et Québec: Officier Commandant, Cie No 12, CRDC, HMCS "Stadacona", Halifax, N.S.
- b) Pour la province d'Ontario: Officier Commandant, Cie No 13, CRDC, Central Air Command, Trenton, Ont.
- c) Pour les provinces de Colombie Britannique, Alberta, Saskatchewan, Manitoba, Territoires du Nord-Ouest et Yukon: Officier Commandant, Cie

No 11, CRDC, Rear Hq, Western Command, Calgary, Alberta.

Confrère de France désire entrer en relation avec dentiste canadien

Madame G. Flaugère, femme-dentiste pratiquant à Pierrefonds (Oise), France, désire séjourner au Canada durant un certain temps et aimerait loger chez un dentiste, qui recevrait en échange de son hospitalité les services d'infirmière (assistante) de Madame Flaugère. Les dentistes, que la chose intéresserait, sont priés de communiquer à l'adresse ci-dessus.

Demande d'échanges professionnels

Un dentiste français, W. Bertrand Kérébel, Pont-Aven, Finistère, France, désire entrer en relation avec un confrère canadien, avec qui il pourrait échanger revues et livres dentaires professionnels.

Réception de l'Association Dentaire Canadienne, à Boston

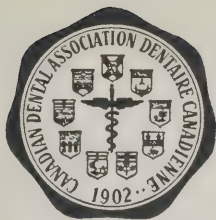
Les délégués de l'Association Dentaire Canadienne au Congrès annuel de l'Association Dentaire Américaine et à la réunion de la Fédération Dentaire Internationale, tenus à Boston, dans la première semaine du mois d'août, ont reçu à diner les membres présents de l'Association Dentaire Anglaise.

Cette réception, qui eût lieu à l'Hotel Statler de Boston, le 4 août, groupait tous les dentistes canadiens et anglais prenant part au Congrès.

Nécrologie

Le docteur Adolphe L'Archevêque, père, est décédé le 5 juillet, à l'âge de 74 ans. Ce confrère avait commencé à exercer en 1924, à Montréal, et depuis quelques années pratiquait à Terrebonne. Très actif dans la politique, le docteur L'Archevêque avait été tour à tour député et échevin de la ville de Montréal.

Nos condoléances à la famille et particulièrement au docteur Adolphe L'Archevêque, son fils, professeur à l'Université de Montréal.



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.
397 est Boul. S.-Joseph, Montréal

Progrès au sein de notre association

Au cours du mois de juillet, tous les membres canadiens-français de l'Association Dentaire Canadienne ont reçu du Secrétariat de l'Association, à Toronto, une communication écrite en français au sujet de la réunion annuelle de Digby.

Sauf erreur, c'est la première fois que le Secrétaire de notre Association s'adresse à nous dans notre langue et continuera de le faire à l'avenir, puisqu'il vient de s'adjoindre une assistante française.

Les dentistes canadiens-français devraient adresser leurs félicitations au Docteur Don W. Gullett (211 rue Huron, Toronto) pour le geste, qu'il vient de poser. De plus ils doivent rendre grâce à leurs représentants, qui ne cessent de réclamer la place du français au sein d'une Association nationale.

G. de M.

Réunion de l'Association Dentaire Canadienne, à Digby

Le manque d'espace nous empêche de commenter, comme nous le voulions, les délibérations de l'assemblée générale des délégués des provinces de l'Association Dentaire Canadienne et les décisions prises à cette réunion, tenue à Digby, Nouvelle-Ecosse, à la fin du mois de juin.

Nous nous contentons de présenter un résumé bien succinct des rapports, qui furent discutés et adoptés par le Bureau des Gouverneurs. Nous espérons, dans un avenir prochain, avoir plus de pages à notre disposition pour écouler des articles et des commentaires des plus intéressants, qui nous sont envoyés par de précieux collaborateurs.

G. de M.

Réunion annuelle de l'Association Dentaire Canadienne, à Digby.

La réunion annuelle du Bureau des Gouverneurs a été tenue au Pines Hotel, Digby, Nouvelle-Ecosse, du vendredi, le 20 juin, à 1 hr, p.m. à mardi, le 24 juin, à 12.30 hrs p.m. Etaient présents:

Gouverneurs: Dr V. D. Crowe, président, Truro, N.-E.; Dr J. K. Carver, vice-président, Montréal, Qué.; Dr R. L. Pallen, Vancouver, C.B.; Dr R. A. Rooney, Edmonton, Alberta; Dr W. M. Blair, Regina, Sask.; Dr H. R. Merkeley, Winnipeg, Man.; Dr Harvey W. Reid, Toronto, Ont.; Dr G. H. Campbell, Orangeville, Ont.; Dr J. F. Giffen, London, Ont.; Dr H. L. Field, Hamilton, Ont.; Dr H. W. MacDonald, Saint-Jean, N.B.; Dr G. Ratté, Québec, Qué.; Dr D. T. Wayne, Charlottown, I. de P.E.; Dr Don W. Gullett, secrétaire, Toronto, Ont.

Anciens présidents: Dr J. S. Bagnall, Halifax, N.-E.; Dr M. H. Garvin, Winnipeg, Man.; Dr A. W. Faulkner, Halifax, N.-E.; Dr G. L. Cameron, Swift Current, Sask.; Dr R. L. Pallen, Vancouver, C.B.; Dr Harvey W. Reid, Toronto, Ont.; Dr W. W. Woodbury, Halifax, N.-E.; Dr A. L. Walsh, Montréal, Qué.

Rédacteurs: Dr M. H. Garvin, Winnipeg, Man.; Dr G. de Montigny, Montréal, Qué., rédacteur de la section française; Dr T. R. Marshall, Toronto, Ont., ass.-rédacteur.

Présidents de Comités: Dr R. P. Lowery, Toronto, Ont.; Dr Hugh Eaton, Halifax, N.-E.; Dr R. G. Ellis, Toronto, Ont.; Dr E. Charron, Montréal, Qué.; Dr J. A. Bothwell, Toronto, Ont.; Dr C. A. E. McCabe, Valleyfield, Qué.

Représentants du Gouvernement Fédéral: Dr G. L. Cameron, Départ. des Affaires des Vétérans; Dr H. K. Brown, Départ. du Bien-Etre et de la Santé Nationale; Col. E. M. Wansbrough, Départ. de la Défense Nationale.

Membres: Dr L. J. Fasken, Regina, Sask.; Dr F. C. Bonnell, Saint-Jean, N.B.; Dr Harry S. Thompson, Toronto, Ont.; Dr P. G. Anderson, Toronto, Ont.; Dr R. G. Hemmerick, Kitchener, Ont.; Dr W. C. Oxner, Halifax, N.-E.; Dr W. H. Beckfith, Halifax, N.-E. et plusieurs autres.

Assemblée générale.

Une assemblée plénière de l'Association eut lieu, au Pines Hotel, à Digby, jeudi, le 24 juin, à 4.30 hrs p.m. Au cours de cette réunion, le président sor-

tant de charge, le docteur V. D. Crowe prononça son discours d'adieu. Le Doyen de Dalhousie, le docteur W. W. Woodbury, offrit le fauteuil présidentiel au docteur J. K. Carver, de Montréal, et présenta la médaille d'ancien président au docteur Crowe. Il y eut ensuite discussion générale entre les membres présents et plusieurs d'entre eux ont exprimé leur appréciation pour le beau travail accompli par l'Association.

Une autre assemblée plénière fut convoquée au Théâtre Capitol de Digby, où le docteur J. Stanley Bagnall, de Halifax, fut fait membre honoraire de l'Association. Le docteur Rooney d'Edmonton et le docteur Pallen, de Vancouver, ont proposé en termes élogieux cette motion en faveur du docteur Bagnall, qui, durant de nombreuses années, s'est dévoué à la cause de l'Association Dentaire Canadienne. Le président, le docteur Crowe, remit le certificat au docteur Bagnall, qui remercia de l'honneur qu'on lui faisait.

Comité de l'Association pour 1947-1948

Les officiers de l'Association, élus pour l'année 1947-1948, sont les suivants: Président: J. K. Carver, Montréal, Qué.; Ancien Président Immédiat: V. D. Crowe, Truro, N.-E.; Vice-Président: H. J. Merkeley, Winnipeg, Man.; Secrétaire-Trésorier: Don W. Gullett, Toronto, Ont.; Comité Exécutif: J. K. Carver, Montréal; V. D. Crowe, Truro; G. Ratté, Québec; H. J. Merkeley, Winnipeg; J. G. Giffen, London; Don W. Gullett, Toronto.

Rapport nécrologique.

Le Comité de Nécrologie rapporte, avec regret, la mort des membres suivants, survenue depuis la dernière assemblée: Adams, G. W., Danville, Richmond, Qué.; Ault, James Wesley, Prescott, Ont.; Austin, Hugh Sutherland, Acton, Ont.; Beaulieu, Eugène, Québec, Qué.; Bertrand O. H., Calgary, Alta.; Bowles, Manly, Winnipeg, Man.; Butler, F. A., Mission, C.B.; Cinq-Mars, G., Québec, Qué.; Claioux, I., Montréal, Qué.; Coates, John Warren, Bradford, Ont.; Currie, Thomas Alexander, Toronto, Ont.; Daly, Jasper J., Sussex, N.-B.; Duguay, L., Lac St-Jean, Qué.; Fletcher, C. M., Lethbridge, Alta.; Fluhman, M., Montréal, Qué.; Follick, E. R., Vancouver, C. B.; Galloway, William Henry, Blenheim, Ont.; Gaudreau, S., Québec, Qué.; Gemeroy, G. Alex, Edmonton, Alta.; Gower, Frederick

L., Meaford, Ont.; Green, C. B., Montague, I. du P.-E.; Hebert, J. E., Val d'Or, Abitibi, Qué.; Hobbs, Harry Elmer, Toronto, Ont.; Hudson, Vernon, Moncton, N.-B.; Hull, Richard William, Toronto, Ont.; Jeffs, Walter Thomas, Dresden, Ont.; Kinsman, Harry Miles, Hamilton, Ont.; Kolber, M., Montréal, Qué.; Loucks, Harry Ross, Cobourg, Ont.; Lumsden, Colin Archibald, Ottawa, Ont.; McComb, Calvin Seabert, Port Arthur, Ont.; McDonald, James Francis, Hamilton, Ont.; McGrory, Francis Stephen, Cardinal, Ont.; McLean, E. G., Cambridge, N.-B.; McVey, Kenneth McLeod, Toronto, Ont.; Moulson, H., Saskatoon, Sask.; Moyer, W. M., Prince Albert, Sask.; Munroe, H. J., Westmount, Qué.; Paterson, Thomas Robertson, Almonte, Ont.; Pigeon, H., Montréal, Qué.; Porter, James Roy, Toronto, Ont.; Price, O. B., Moncton, N.-B.; Revell, John, Ponoka, Alta.; Reynolds, William Reginald, Toronto, Ont.; Romer, Jacob, Toronto, Ont.; Romph, William Edward, Hamilton, Ont.; Roulston, George Fulton, Exeter, Ont.; Schmeltz, Elmer Frederick, Simcoe, Ont.; Shannon, James Adams, Sault Ste-Marie, Ont.; Sproule, Beverley, Moncton, N.-B.; Steinberg, A., Adresse inconnue; Tepoorten, F. D., Vancouver, C. B.; Thomas, Mitchell Albert Ross, Toronto, Ont.; Turner, Dwight Mason, Oakville, Ont.; Vaughan, H. G., Chatham, N.-B.; Verner, P., Montréal, Qué.; Woodbury, K. F., Halifax, N.-E.; Young, William Shrewsbury, Waterloo, Ont.

Rapport du Président.

En présentant son rapport, le Dr. Crowe remercia tous ceux, qui avaient consacré beaucoup de dévouement et d'efforts à la besogne de l'Association, durant son terme d'office. Il fit un résumé des activités de l'année.

En acceptant son rapport, le Bureau des Gouverneurs loua le travail du Président, travail effectif et ardent, au profit de la profession du pays.

Rapport du Secrétaire.

Les points suivants furent mentionnés dans le rapport du secrétaire:

- 1) L'importance de présenter au public la profession dentaire comme une vocation.
- 2) L'opportunité de constituer un comité spécial pour étudier la question d'une assurance-groupe.
- 3) La recommandation des énoncés suivants en vue de définir clairement la politique de l'Association en face des questions d'unions:
- a) L'Association s'objecte, en principe, à la coercition des professionnels à

- se joindre à des unions. Les dentistes ont déjà leur Association et paient des cotisations à ces organisations.
- b) Les organisations dentaires, déjà existantes, sont capables d'obtenir les résultats et de remplir les fonctions pronées par les unions ouvrières.
- c) Les constitutions des associations dentaires, qui reposent sur les règles de l'éthique professionnelle, empêchent les dentistes de se soumettre à la possibilité de recevoir des ordres émanant des unions ouvrières, dans lesquelles les professionnels seraient forcément en petit nombre.
- d) Les conditions de travail, des salaires et des promotions, dans le cas de dentistes, peuvent être réglés d'une façon plus adéquate par des experts entraînés dans ce domaine, spécialistes, qui envisageront aussi bien l'intérêt général et les avantages des dentistes en particulier. Aucune union ouvrière possède l'entraînement nécessaire au règlement intelligent de ces questions.
- e) L'importance de la séniorité, qui est le point d'appui des unions ouvrières doit être placée après l'habileté et le rendement d'une carrière professionnelle.
- f) La coercition de tous les employés industriels, comme condition de leur embauchage, à joindre, ou à payer une cotisation à une union indique une tendance vers le totalitarisme, qui est une forme politique indésirable du public, des employés et des unions elles-mêmes; tous ont intérêt au maintien des principes et de la pratique démocratiques. Un professionnel est, par goût et à cause de ses études, un individualiste. Cette insistance auprès des dentistes à joindre une union, à laquelle ils s'objectent en principe, est de nature à décourager les meilleurs professionnels à entrer au service d'une organisation, où il leur faut devenir membre d'une union.
- 4) La continuation de l'étude des services dentaires dans les hôpitaux.
- 5) Travail continué sur la question de l'Impôt sur le Revenu des dentistes.
- 6) Augmentation du nombre des membres de l'Association.
- 7) Avantages d'un Congrès National annuel.
- 8) Renseignements sur la Fédération Dentaire Internationale.
- 9) L'organisation de cours sur la Péodontie.
- 10) Evaluation des honoraires du D.A.V.
- 11) Publication d'une liste des membres.

- 12) Nomination d'un représentant *de l'Association à l'Institut National du Cancer du Canada.
- 13) Faits et chiffres au sujet du personnel dentaire du Canada.

Résolutions prises au sujet du rapport.

- 1) Le Comité des Relations Publiques est chargé de préparer du matériel en vue de la publication d'imprimés pour représenter, au public, notre profession comme une vocation.
- 2) Un Comité spécial est constitué pour étudier la question d'assurance-groupe.
- 3) Les recommandations suggérées au sujet des unions ouvrières sont adoptées.
- 4) Un Comité spécial est nommé pour étudier le problème des services dentaires dans les hôpitaux.
- 5) L'avocat de l'Association est prié de poursuivre ses démarches au sujet de l'Impôt sur le Revenu des dentistes, en considérant les points suivants:
 - 1) L'évaluation uniforme par les Inspecteurs de l'Impôt de l'allocation réclamable par le dentiste pour l'usage de son automobile ou pour ses frais de déplacement.
 - 2) Une déduction de son revenu imposable pour dépenses effectuées à sa participation à un congrès, à un cours post-scolaire ou à d'autres activités du même genre.
 - 3) Une déduction du revenu imposable pour cotisations aux organisations professionnelles par les dentistes salariés.
- 6) Un encouragement à devenir membre de l'Association.
- 7) Une suggestion au secrétaire de faire parvenir à tous les membres, de temps en temps, une lettre circulaire décrivant les activités de l'Association.
- 8) Un remerciement officiel aux dames auxiliaires de la Société Dentaire de London, Ontario, pour leur don généreux d'une somme de \$1,048.55, pour encourager les recherches dentaires.

- 9) L'approbation d'une représentation officielle de l'Association à la réunion de la Fédération Dentaire Internationale, qui aura lieu, à Boston, en août 1947.

- 10) Une recommandation pour que le Gouvernement Fédéral adopte l'échelle des honoraires du D.A.V., pour tous ses départements, et que certains items soient augmentés.
- 11) Considération des statistiques au sujet du personnel dentaire du Canada et présentation des suggestions suivantes pour améliorer le nombre des dentistes, au pays:
 - a) Demander aux registraires de chaque province de compiler des chiffres miméographiés au sujet des avantages et des opportunités d'établissement d'une clientèle, dans la province et de faire connaître ces données.
 - b) Faire pression auprès des gouvernements pour qu'ils aident à défrayer les dépenses nécessitées pour l'agrandissement d'une Ecole Dentaire, quand le besoin est pressant. Aussi, le gouvernement devrait offrir des bourses d'études à des élèves, qui s'engageraient à ouvrir un cabinet dans des endroits privés de dentiste et cela pour une certaine période de temps.

Rapport du trésorier.

Le rapport du trésorier montre que les cotisations des provinces ont augmenté durant l'année et que, en conséquence, le budget a été équilibré. Les frais généraux, ayant eux aussi augmenté, il n'a pas été possible de financer de nouvelles entreprises, qui s'imposaient. Le congrès de 1946 a donné un profit de \$831.15, mais ce surplus ne peut pas être considéré comme une source de revenus annuelle, puisque l'Association a comme politique de ne pas compter sur ces congrès pour se créer des revenus. L'état de compte des auditeurs pour l'année finissant le 31 décembre 1946 est attaché à ce rapport:

BILAN FINANCIER au 31 décembre 1946

ACTIF

Valeurs:

Comptant en main et à la banque, compte général	7,224.47	
Obligations du Canada, 3%, au prix d'achat (valeur actuelle du marché \$19,332.50)	18,621.87	
Intérêts accumulés des obligations	145.00	25,991.34

Comptant en banque pour comptes spéciaux:

Fonds du Mémorial de Guerre	7,626.71	
Comité des Recherches Dentaires	4,077.59	11,704.30

Valeurs fixes:

Mobilier de bureau et accessoires	1,143.71	
Moins réserve pour dépréciation	357.32	786.39

Comptes déferés:

Dépenses, re: Congrès 1947		119.17
----------------------------------	--	--------

\$38,601.20

PASSIF**Surplus:**

Compte général	26,896.90
Fonds du Mémorial de Guerre	7,626.71
Comité des Recherches Dentaires	4,077.59

\$38,601.20

**Compte général des Revenus et Dépenses
de l'année finissant le 31 décembre 1946****REVENUS****Cotisations des Collèges provinciaux:**

Colombie Britannique	1,572.00	
Alberta	1 330.00	
Saskatchewan	768.00	
Manitoba	1,250.00	
Ontario	10,165.00	
Québec	3,588.00	
Nouvelle - Ecosse	995.00	
Nouveau-Brunswick	424.00	
Ile du Prince Edouard	140.00	20,232.00

Association Dentaire Canadienne:

Cotisations, re: Congrès 1946	620.00	
Surplus, re: Congrès 1946	211.15	
Transfert du Comité des Publications, à cause de surplus, années 1946 et précédentes	3,578.09	
Intérêts sur obligations	481.03	
Vente de pamphlets	5.00	
Revenus divers	45.00	25,182.27

DEPENSES**Allocations:**

Canadian Dental Hygiene Council	300.00	
Comité des Publications	4,500.00	
Comité des Recherches Dentaires	1,000.00	5,800.00
Honoraires du secrétaire		3,000.00
Salaires de sténographes, etc.		2,905.00
Assurance - Chomage		61.92
Dépenses du Comité du Mémorial de Guerre		464.10
Dépenses d'autres Comités		1,538.66
Dépenses des officiers		1,324.94
Dépenses des réunions du Bureau des Gouverneurs		2,619.02
Pamphlets et rapports		195.31
Cotisation à la Canadian Welfare Council		5.00
Papeterie et dépenses de bureau		970.49
Téléphone et télégrammes		138.26
Timbres - poste		416.59
Dépréciation, ameublement de bureau, etc.		114.37
Surplus net pour l'année		\$5,627.68

Bilan général du surplus

Surplus, décembre 31, 1945	21,388.96
Surplus net de l'année rapporté	5,627.68

27,016.64

Moins montant transféré du surplus du Comité des Recherches	119.74
---	--------

Surplus, au 31 décembre 1946	26,896.90
------------------------------------	-----------

Bilan du Mémorial de Guerre

Souscriptions	7,603.80
Intérêts de la banque	22.91
Surplus, au 31 décembre 1946	\$7,626.71

**Bilan financier du Comité des Recherches
Revenus et dépenses**

Allocations:	REVENUS	
Dominion Dental Council		1,000.00
Association Dentaire Canadienne		1,000.00
Intérêts		7.29
	DEPENSES	2,007.29
Dépenses diverses		49.44
Surplus net pour l'année		1,957.85

Bilan du surplus

Solde, décembre 31, 1945	2,000.00
Surplus net pour l'année, figuré	1,957.85
Transfert du surplus général	119.74
Surplus au 31 décembre 1946	\$4,077.59

Rapport du Comité Exécutif.

Les procès-verbaux du Comité Exécutif sont présentés pour ratification. Un grand nombre de questions ont été étudiées durant l'année. Voici les plus importantes:

- 1) Représentation officielle de l'Association au Congrès de l'Association Dentaire Américaine et de la Fédération Dentaire Internationale, en août, à Boston, et une réception officielle aux représentants de l'Association Dentaire Anglaise.
- 2) Acceptation de l'invitation de tenir le Congrès de 1948, dans la Province de Québec.
- 3) Status professionnel des dentistes à l'emploi du Gouvernement Fédéral.
- 4) Adoption des honoraires de Départ. des Affaires des Vétérans par les autres départements du Gouvernement.
- 5) L'opportunité de conférer des titres de membres honoraires de l'Association.
- 6) Façon d'administrer les bourses du Mémorial de Guerre.
- 7) Amendement des règlements et de la constitution.
- 8) Etude du projet de bill fédéral "Relations Industrielles et Enquête sur les Désaccords, 1947".
- 9) Admission de dentistes étrangers.
- 10) Approbation du principe de réunir périodiquement les dentistes employes à des Services de Santé Publique.
- 11) Adoption des projets pour le Congrès de 1947.

12) Réception des rapports intérimaires de différents comités.

13) Publication d'une liste corrigée des membres de l'Association.

14) Questions touchant à l'Impôt sur le Revenu.

Tout ce travail du Comité Exécutif fut approuvé par l'assemblée. On fit les recommandations suivantes: 1) qu'un aussi grand nombre de dentistes canadiens que possible assiste au congrès international, à Boston; 2) que les dentistes à l'emploi du Gouvernement Fédéral conservent leur rang professionnel; 3) que l'on multiplie les efforts pour que tous les départements, à Ottawa, adoptent, comme échelle d'honoraires, les tarifs du Départ. des Affaires des Vétérans; 4) qu'on encourage et qu'on supporte le plus possible l'établissement de bourses d'études.

Rapport du Comité des Finances.

Le rapport suivant souligne le travail plus considérable de l'Association et regrette que des projets intéressants doivent être mis de côté pour rester dans les limites de nos revenus.

Le budget, pour 1947, est établi avec un déficit de \$5,388.62. Contenue dans le rapport, était une suggestion que le Président et le Secrétaire visitent toutes les provinces, durant 1947. On remarque que les cotisations pour 1947 seront plus élevées, mais qu'il sera difficile de lancer le budget, avant 1948, alors que les octrois provinciaux auront atteint leur maximum.

Rapport du Comité des Publications.

Le rapport fait mention d'efforts tentés pour améliorer le Journal, tant par l'augmentation du nombre de pages que par l'addition de couleurs supplémentaires et de disposition différente du texte. A cause du coût de revient plus élevé, la publication du Journal devra recevoir plus de subsides. Le budget pour 1948 montre, de ce fait, une augmentation substantielle de fonds destinés au Journal.

Le gérant d'affaires du Journal présente à l'assistance des chiffres au sujet de la circulation, de l'annonce et du financement du Journal. L'augmentation de la main-d'oeuvre et du papier à impression valut à notre Journal deux majorations de 20% dans le coût de sa publication, durant l'année. Après avoir étudié sérieusement la question de l'annonce, il fut décidé de ne pas augmenter, pour le moment, les tarifs des pages d'annonce.

Le Dr Garvin, comme rédacteur de la section anglaise, fit part aux gouverneurs de la difficulté de publier tout le texte en mains dans le nombre de pages consacrées au Journal et déclara que ces difficultés subsisteraient jusqu'à ce que le Journal reçoive un support financier plus adéquat. Il préconisa une représentation qui tienne plus compte des régions géographiques, au sein du Comité des Publications et l'addition des rédacteurs au dit Comité, de façon à ce que tous ceux, qui ont à coeur de voir réussir le Journal, se rencontrent de temps en temps. Le docteur de Montigny, rédacteur de la section française, exposa un besoin pressant de plus d'espace. Son désir est de porter à la connaissance des dentistes canadiens-français toutes les nouvelles de l'Association et il demande que tous les avis et toutes les convocations, qui proviennent du bureau du Secrétaire, soient rédigés en français, de façon à ce que les dentistes de langue française soient tenus au courant des activités de l'Association. L'avantage d'avoir un Journal bilingue est évident par l'intérêt international, qu'il soulève. Le Dr de Montigny suggéra, en outre, que la date de parution du Journal, chaque mois, soit avancée.

Moins la suggestion du Dr Garvin, à savoir que le Comité des Publications soit augmenté, toutes les autres propositions furent acceptées par le Bureau. On jugea bon de remettre à plus tard ces changements au sein du Comité, mais de lui adjoindre les rédacteurs, comme aviseurs.

Rapport du Comité des Services Dentaires.

Ce Comité s'occupe des services dentaires fédéraux.

Le rapport traite des efforts, qu'il a faits, pour doter le Corps Dentaire Royal Canadien d'une base plus équitable, en ce qui a trait à:

- 1) Une "Solde de Responsabilité" plus élevée;
- 2) La limite d'âge pour le service;
- 3) Commissions à court terme.

Le premier de ces objectifs a déjà été atteint.

Durant l'année, on a tenté d'unifier tous les services fédéraux d'hygiène dentaire, mais sans résultat. La question des traitements dentaires aux Vétérans a été maintes fois discutée par le Comité avec le Département, qui s'occupe de cette affaire, à Ottawa, et toujours les échanges de vues se sont faits d'une façon agréable. Certaines suggestions au sujet des honoraires ont été acceptées.

La question du status professionnel des dentistes à l'emploi du gouvernement fédéral a été solutionnée en partie.

Les démarches du Comité ont été approuvées par le Bureau.

Rapport du Comité du Programme.

Un rapport complet du programme du congrès national et le budget de cette réunion furent présentés et acceptés. Les membres du Comité furent félicités pour l'organisation élaborée du Congrès, qui fut un succès au delà de toute espérance.

Rapport du Comité des Services Auxiliaires.

Ce rapport fut une suite de l'étude, qui fut présentée, l'an dernier, et résumait les changements survenus durant l'année dans ce domaine, dans les pays étrangers. Le nombre des techniciens a augmenté considérablement à cause de l'entraînement donné durant la guerre et, en conséquence, il y a plus de laboratoires en affaires que jamais. Dans plusieurs cas, la formation des techniciens n'est pas suffisante et l'équipement des laboratoires est incomplet pour répondre aux exigences de la profession dentaire; cette situation encourage la pratique illégale.

La législation concernant les hygiénistes dentaires continue à être mise en règle. Une définition du domaine des hygiénistes est d'un besoin pressant. On demande de fournir aux membres de l'Association des renseignements précis au sujet de la position actuelle du personnel auxiliaire.

Rapport du Comité de la Santé Dentaire et des Relations Publiques.

Ce rapport exposa le besoin de distribuer au public des pamphlets d'hygiène dentaire et de retenir les services par tiels d'une personne compétente pour préparer cette littérature. On loua les relations toutes cordiales, qui existent entre ce Comité et la Division Dentaire du Ministère de la Santé et du Bien-Etre National, qui n'hésite pas à mettre à la disposition du Comité toutes les facilités, dont elle dispose.

Rapport du Comité des Amendements.

Une étude de l'amendement paru dans le livraison de mars du Journal fut présentée et le Bureau recommanda de rejeter cette proposition. Le rapport fut approuvé.

Rapport du Comité de Réhabilitation.

Le Comité, dans son rapport final, fit mention que son travail, durant l'année, avait été d'un caractère de conseil. Quatre recommandations furent faites et approuvées:

- 1) Que le Bureau félicite le Secrétaire pour son relevé annuel des dentistes canadiens et que ces statistiques soient continuées.
- 2) Que, dans un cas d'urgence, requérant la mobilisation d'hommes, l'A.D.C. coopère avec les autres organisations de santé nationales.
- 3) Que dans un tel cas d'urgence, tous les dentistes soient immobilisés dans leur localité, pour qu'il y ait un équilibre entre les besoins d'urgence et les besoins civils.
- 4) Que ce Comité cesse de fonctionner.

Rapport du Comité d'Ethique Professionnelle.

Le Comité rapporte qu'aucune infraction a été portée à son attention, durant l'année.

Rapport du Comité des Recherches.

Le Comité a consacré ses efforts à la formation d'un personnel capable d'un tel travail. L'aide pécuniaire nécessaire à des recherches peut être trouvée, mais les hommes de science susceptibles d'entreprendre des travaux de ce genre, sont rares. Des bourses d'étude ont été créées par le Comité pour encourager la formation scientifique d'étudiants, qui se consacreront à la recherche.

Rapport du Comité de Législation.

Aucun changement important ne fut noté, dans les provinces, dans leur législation, au cours de l'année. Les projets en vue de changer le statut des groupements professionnels, en Saskatchewan,

ont été abandonnés. La Province d'Alberta a passé une loi pour favoriser les pensionnés de l'état de services dentaires gratuits (excepté la prothèse). Plusieurs provinces projettent de légaliser la profession d'hygiénistes dentaires. Les projets de loi pour forcer les dentistes à faire partie d'unions ouvrières provoquent beaucoup de discussions au sein de la profession.

Rapport du Comité d'Assurance-Santé.

Durant la dernière année, le projet de doter la population d'un système d'assurance-santé n'a pas fait de progrès notable, sur ce continent. En Angleterre, une loi du genre a été passée et sera mise en acte, l'année prochaine. Aux Etats-Unis, plusieurs bills du genre ont été déposés devant le Congrès, mais aucun de ces bills a fait beaucoup de progrès. Plusieurs pays ont établi des organismes du même genre, mais d'une nature partielle ou en ajoutant quelque peu à ce qui existait déjà.

En étudiant les réalisations de l'année passée, on se rend de plus en plus compte que l'éducation dentaire des populations doit être entreprise avant de tenter de leur donner des soins dentaires, si on veut que ces soins soient vraiment efficaces. L'état de la denture d'une localité peut être considérablement améliorée, si des mesures éducatives sont mises en branle d'une façon adéquate.

Il faut trouver le moyen de guider le praticien à faire de la dentisterie préventive, plutôt que de traiter les dents. La meilleure façon de combattre la coercition d'Etat est d'obtenir des résultats d'une manière volontaire.

Rapport du Comité de Conseil.

Ce Comité, durant l'année, s'est efforcé de délimiter le travail de chaque comité et présenta un rapport dans ce sens,

Rapport du Comité des Relations Internationales.

Un échange de renseignements avec d'autres organisations dentaires de pays étrangers a été effectué, durant l'année, avec des résultats, appréciables. On a étudié cette possibilité d'envoyer des professeurs canadiens dans des universités chinoises, pour de courtes périodes, et de recevoir des étudiants chinois dans nos Ecoles canadiennes. On a été d'avis que ces ententes devraient être d'abord faites entre les gouvernements des deux pays et qu'ensuite nous pourrions offrir nos disponibilités.

La Fédération Dentaire Internationale doit présenter, sous peu, des projets pour faire de cette organisation une affaire mondiale.

(à suivre)



—Photo by Dr. J. Stanley Bagnall, Halifax, N.S.

Court view of Port Royal Habitation, the first permanent establishment of white men north of the Gulf of Mexico, erected in 1605, near Annapolis Royal, Nova Scotia. It is now restored in every exact detail.

Thanksgiving!

Our fathers' God! from out whose hand
 The centuries fall like grains of sand
 We meet today, united, free,
 And loyal to our land and Thee,
 To thank Thee for the era done,
 And trust Thee for the opening one.

Whittier





L. J. D. FASKEN, D.D.S.
Regina, Saskatchewan.

President of the Western Canada Dental Society
Secretary of the Council of the College of Dental
Surgeons of Saskatchewan.

Elected Secretary of the College after the Province was formed in
1907, and has held this position ever since, and twelve years ago
was made permanent secretary at the pleasure of the Council.

Graduate of the Royal College of Dental Surgeons of
Ontario in 1905.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, OCTOBER, 1947

NO. 10

DENTAL CARIES AND RELATED SUBJECTS*

by B. GOTTLIEB

Baylor University College of Dentistry, Dallas, Texas

THE BIOLOGICAL PRINCIPLE OF DENTAL CARIES

OUR entire body is covered by an epithelial blanket which is supposed to hold the inside treasures tightly protected. The only places where this epithelium is perforated by holes are those places where the teeth are inserted, piercing the epithelial blanket and connecting themselves to the bone by the connective tissue of the periodontal membrane. As long as a tooth is in its place, maintaining the anatomical continuity, the tooth serves as a stopper. Such a stopper is supposed to be impermeable. If there are leakages in the stopper and if these leakages contain organic, non-calcified matter, microorganisms which have the capacity to invade and digest organic material, will project themselves along these roads and produce necrotic cavities. The great variety of microorganisms which are present in every mouth makes it sure that microorganisms with the proper quality are present always, ready for invasion. Caries producing microorganisms are some strands of staphylococcus aureus. It is the same microorganism which usually produces carbuncles and osteomyelitis. They are known to have a great ability to invade and to necrotize tissue. Apart from that, they produce acid too. But not all acid accompanying caries seems

to have only this source. It is probable that other acidogenic microorganisms accompany the caries microorganisms proper. The problem is not whether the proper microorganisms are present in the mouth. The caries problem is centred only around the question whether invadable, non-obstructed roads are available which lead through the tooth to the inside of the body. Some teeth which remained in the mouth for decades, caries resistant, became carious by putting them into saliva of caries immune people, changing the saliva once a day. That proves two things. Some teeth are kept immune only by the continuous flow of saliva. Also silver nitrate penetrates deeper in extracted, than in non-extracted teeth. It proves further that caries producing microorganisms are present also in saliva of people who have caries immune teeth.

DEFENSE BARRIER ERECTED AGAINST INVASION OF MICROORGANISMS IN CONNECTIVE TISSUE AND IN THE HARD TISSUES OF THE TOOTH

We have mentioned that the harmful microorganisms must be able to invade and necrotize organic tissue. This necrotizing capacity means that toxins are produced which deteriorate organic matter. Only tissues with a very high defence capacity can fight back successfully; forming a defence ring

* Presented at the Northwest Conference on Dental Medicine, held at Harrison Hot Springs, British Columbia, May 18-21, 1947.

around the battlefield that cannot be successfully attacked by the microorganisms and their toxins. The leucocytes and histiocytes, forming phagocytes, seem to take care of the bodies of the microorganisms while the tissue fluid and the lymphocytes take care of the toxins.

In the enamel and the dentine such a biologic defence barrier is impossible. These hard tissues neither contain connective tissue nor circulation from which a defence police could be recruited. At the first glance, enamel and dentine seem to be indefensible stations, which have to be looked upon as being lost positions, once they are invaded by microorganisms.

ACID PRODUCES THE DEFENSE BARRIER IN ENAMEL AND DENTINE

The caries process proper, which is a proteolytic one, is mostly accompanied by acid production. It was a far reaching misunderstanding to look upon caries as being a product of acid action. We feel entitled to look upon this phase as being already historical in character. Only in young people, with a strong acid component, the spearheading heavy decalcification of the dentine may reach the pulp soon and cause great harm. In the average case we see the moderate acid action in enamel and dentine replacing the cellular inflammation in the connective tissue. The analogy is great. The inflammation may do some harm, like too much acid production.

Moderate acid action in enamel and dentine produces a barrier of hypercalcification which cannot be passed by the caries producing microorganisms. The spreading of the caries process is stopped, but too much acid action may reach the pulp and cause harm. The inflammatory process in the lung in cases of pneumonia is intended also to fight back the invading infection. But at the same time, accumulation of inflammatory police in the lung occupies much of the place which is needed for furnishing oxygen to the body. If this process of inflammation is not checked

by sulpha drugs and penicillin, extensive space may be occupied by the inflammation so that not even an oxygen tent may be able to save an affected person from suffocation. We tend more and more to see the great beneficial effect of the acid component in caries, like we learned to look at the process of inflammation not as being an independent damaging process, but a beneficial reaction to a primary damage.

HOW IS THE HYPERCALCIFIED BARRIER PRODUCED?

The acid works in the enamel and dentine in the same way. When a quantity of calcium of the tooth tissue is dissolved by acid, it is mobilized, and moved into the surrounding sections. If these dissolved calcium salts reach the outside surface of the tooth, they are washed away by the saliva. Spreading into other directions, they come into sections of the tooth with higher pH and a part of the dissolved calcium salts go out of solution and are precipitated. In these places calcium is added to the normally present quantity and hypercalcification results. In the enamel the prism sheaths are calcified and brought to the same degree of calcification as the prisms and the interprismatic substance between. Transparent enamel results, and it is a reliable barrier to spreading microorganisms that are of the caries process type. Likewise, it is a barrier to spreading of silver nitrate, which spreads according to the same caries principles, along the non-calcified roads. Once they are blocked by calcification, the spreading is stopped.

In the dentine the dissolved calcium salts are poured into the dentinal tubuli filling them entirely, thus producing opaque dentine. Whenever a foreign material, even air, fills the dentinal tubuli, a great difference in refraction develops between the content of the tubuli and the dentine matrix, and opaqueness results. The knowledge that air in the dentinal tubules produces opaqueness, induced research men to neglect the opacity in the dentine

around caries. They used the knowledge of the transparent enamel being hypercalcified and thought the transparent dentine to be hypercalcified too. It turns out that the transparent dentine is decalcified and the surrounding opaque area is a hypercalcified barrier. Histological study of dentine caries proved that it is a reliable barrier and the Grenz ray examination of such ground sections showed that this opaque dentine is hypercalcified.

Trying to compare the barrier of hypercalcification in enamel and dentine with the biologic barrier in chronic infection of connective tissue, we realize that the barrier erected by hypercalcification in the hard tissues is more reliable than the biologic one of soft tissues. The latter may be broken during a strong acute exacerbation, but the hypercalcified one cannot be broken through by microorganisms. That such a hypercalcified barrier is opened again by acid seems to happen rarely, if at all. It still has to be determined whether or not an obstructed lamella can be opened by some phosphatase enzyme.

INVASION OF THE MICROORGANISMS INTO PULP

As soon as the pulp is reached, connective tissue is encountered and we have to apply the principles of the biology of the connective tissue inflammation. We have to realize that there are in the pulp some special conditions which we must understand that we may make proper conclusions. The pulp is enclosed in a rigid housing and no place is available for accommodation of any increased pulp volume. Inflammation means an infiltration of fluid and cellular elements into the original tissue. That is inflammatory swelling. The rigid walls encasing the pulp prevent any swelling, and apparently considerable pressure upon the inflamed pulp develops. That is known to be the background for the intolerable pain that an acute inflammation produces. The pain temporarily subsides with the approach of necrosis of the pulp.

In addition, another peculiarity has to be considered. The pulp has only a narrow connection with the bulk of the connective tissue at the apical foramen. It is seldom capable of forming a reliable defence barrier, at some level of the pulp itself, so that the apical part of the pulp may be saved from damage. In pulp removal we encounter some times so called living unnecrosed parts near the apex. The cases where a pulp polyp develops belong also to this category. In the majority of cases the entire pulp is disintegrated in a comparatively short time and becomes putrescent. The toxins damage progressively one living part of the pulp after another, making it invadable for the microorganisms which push ahead until they reach the foramen. Here they encounter the more massive periapical connective tissue.

INVASION OF THE MICROORGANISMS INTO THE PERIAPICAL TISSUE. LIQUIDATION.

Here the microorganisms are hiding in the putrescent contents of the pulp canal projecting their toxins into the periapical tissue. When this is damaged enough that a successful defence is impossible, the microorganisms invade. The entire process of invasion, with toxins spearheading the microorganisms, could go on, and does in fact sometimes, until the battle is fought in the blood, as septicaemia with a life chance of 50-50. Fortunately in most cases an inflammatory defence wall is erected and the progress of the process of destruction stops. We know the extent of the periapical area varies, depending upon where the defence succeeded in stopping the invasion progress by erecting a barrier.

Many people enjoy perfect health, carrying along necrotic pulps with periapical granulomas for decades. In other cases, general or metastatic infection develops, known as focal infection, ruthless pursuits of which greatly damaged the reputation of our profession.

We have no intention of discussing how often dentists were blamed with-

out reason, only because the physician could not make the proper diagnosis. We do not plan to discuss how many millions of teeth were sacrificed because of rheumatic pain somewhere, which did not stop after the extraction of all the teeth. The extraction of all the teeth only proved that the teeth were not to blame. Such consolation did not comfort the patient much. In such a dangerous position the profession had to react properly, not by extracting all teeth of every newborn, but by introducing intelligent scientific pronouncements to protect our profession and enable it to protect the oral and systemic health of the human race.

An important step toward the goal of saving the reputation of our profession is the caries prophylaxis which is now based on a healthy foundation and we are going to discuss it later. Here we are going to underline the necessity of *Liquidation*. Some states have introduced the compulsory x-ray checking of the lungs in order to eradicate tuberculosis. It seems to be common sense to x-ray the mouth of every citizen and to remove all teeth which show periapical involvement, apparently indicating infection, provided that no treatment of these teeth is planned. If this is coupled with compulsory impregnation of the teeth of all school children, like the vaccination against smallpox, we will have moved well toward public health. But in addition, we will have raised the level of our reputation to the utmost, in a way which may compare with any achievements of the medical profession.

INFECTION OF A STERILE, NECROTIC PULP FROM THE BLOODSTREAM

Most of us think in terms that the invading microorganisms produce pulp necrosis and also the necrotic periapical area, taking it for granted that any concurrent trouble in another part of the body is caused by focal infection from the primary focus about the tooth. Let us analyze some experience from daily practice. When the tooth gets a blow so that the connection of

the pulp with the periapical connective tissue is severed the pulp becomes necrotic, but is sterile. When a pulp becomes necrotic under a silicate filling, caused by some chemical process, the pulp is sterile in the beginning. Very soon it becomes infected from the blood stream. How does that develop?

On any occasion when we tear open our epithelial blanket, exposing the connective tissue, microorganisms get into the circulation. When the body is healthy everywhere, these microorganisms are killed by the defence forces of our blood, are eliminated for instance by the kidneys, and after 10 or 15 minutes the entire process is liquidated. But if there is any necrotic tissue at the borders of the circulation the microorganisms are attracted to it and settle down, out of the reach of any defence mechanism of the body. Fish and McLean in London found microorganisms in the blood a few minutes after extracting a pyorrheal tooth without precaution. If however, the pocket is cauterized before extraction, no microorganisms may be pumped into the bloodstream. After about ten minutes the blood was sterile anyhow. This is the background of infection of necrotic pulps, primarily not infected. This may be the background of some cases of focal infection where the same type of microorganism is found in the so-called primary and secondary focus. It is quite possible that microorganisms from some infected part of the body get into the blood stream and are attracted by the dormant necrotic tissue in the periapical granuloma. Whenever we extract a tooth, especially with an infected pulp, some microorganisms enter the bloodstream. If some necrotic dormant depositions inhabit the valves of the heart, an acute inflammation may be started. That is the reason why we are so careful in extracting the teeth of people with heart trouble.

PRINCIPLES OF ROOT CANAL WORK —PERIAPICAL CURETTAGE

This viewpoint has also an important bearing on our principles in root canal

therapy. Many root canal specialists stress the importance of getting the root canal sterile. We have to realize that getting sterile necrotic tissue around the apex is no easy achievement. It may be reinfected from the bloodstream in no time. In treated infected root canals, our main effort should be concentrated on removal of any necrotic tissue by periapical curettage, leaving the apex unharmed. Making an apicoectomy, we expose thousands of dentinal tubules, which may be infected, not having been obstructed previously. If we do that, we eliminate any possibility of a reasonable healing. Connective tissue, confronted with infected dentine tubuli, can never deposit cementum on the denuded tooth part. That is the only way of a successful interference.

INTERNAL AND EXTERNAL HYGIENE

We have to differentiate between internal and external hygiene. The external hygiene takes care that no necrotic particle remains connected with the outside of our body. Internal hygiene takes care that no necrotic material remains in our body on the outskirts of circulation, to furnish a hide out for any microorganisms which may come into circulation. It is apparently hard to remove necrotic particles from the valves of the heart. But it is easy to liquidate any necrotic material around the apices of the teeth. The principles of modern canal work (Endodontia) are based on these ideas.

TOOTH FRACTURE EXPOSING DENTINE IN CHILDREN

A fracture of the crown of a child's tooth may involve only the dentine, not exposing the pulp, clinically. The dentinal tubules represent a connection of the pulp with the outside world, through which invasion is performed. Every dentist has seen cases where the pulp became necrotic soon by leaving these invasion roads open. The patient reports that right after an accident, the tooth was very sensitive to cold. Soon it began to subside and finally,

it disappeared entirely. The dentinal fibres, and finally the entire pulp became necrotic. Following an accident we should make it a rule to impregnate instantly the exposed dentine and to repeat this impregnation until ice water is not felt. That means that the wound in the dentine had been obstructed entirely and dressed successfully. Under such a protection the finishing of root formation may go on and the pulp may be saved.

TOOTH FRACTURE EXPOSING PULP IN CHILDREN

If the fracture exposed the tooth pulp of a young person and the root is not fully developed, we should make every possible effort to save the important part of the pulp that is necessary for finishing root formation. It cannot be overemphasized that the use of any heroic drug to kill microorganisms in living tissue should be avoided. We have in our mind the killing of the microorganisms and we necrotize tissue chemically. The formation of a safe nidus for potential invasion is a damage which surpasses an eventual service, manyfold. We should drop the idea of killing microorganisms in living tissue by strong chemicals. When the tissue is damaged we should remove it surgically. If the tissue is not damaged we should leave the job to the biological defence police.

We should realize that the exposed pulp means a hole in the stopper, which we mentioned before. Generally, a hole in the blanket of the epithelium, exposing the connective tissue, is closed by proliferation of the surrounding epithelium. In the tooth the next available epithelium is the epithelium attachment which is separated from the hole by the hard tooth tissue. A closing of the hole here is possible only by extraction of the tooth. If we prefer to do that, no problem is left. We know how the entire future life of a child may be affected if an upper central is lost, even if the child happens to be a boy.

May be that some dentist will prefer

to do his utmost to save such a fractured upper central of a child. It does not mean taking chances, it does not mean to embark on a difficult program. As the closing of this hole, exposing the connective tissue, cannot be performed by epithelialation, we must obstruct it by the same material of which the stopper itself consists. That means we must induce the connective tissue to form a new hard roof. We know that fatty substances are tolerated by the connective tissue best. We dress the exposed wound by a mixture of sulphathiazole - sulphanilamide paste with equal parts of dentine powder from an extracted tooth with a living pulp.

TECHNIQUE FOR TREATMENT OF EXPOSED PULP IN NOT FINISHED ROOT FORMATION

Following is the detailed technique. Anaesthesia. The tooth is isolated and painted with a sterilizing agent like metaphen or tincture of iodine. With a sterile round bur the peripheral part of the pulp is removed, with an inverted cone the walls are shaped for retention of the future cement filling. The bleeding of the cross section of the pulp is stopped by touching with small cotton pellets moistened with 3% hydrogen peroxide. Then we spread the ready made dentine-sulphathiazole paste, remove the surplus from the walls with small cotton pellets moistened with benzine. We moisten the dentine walls of the cavity with cement liquid, spread a creamy cement mixture over the salve dressing. After hardening of the cement we shape a cavity with an inverted cone taking care not to expose the salve, and place an amalgam filling. The unharmed apical part of the pulp will continue the formation of the root.

The production of the dentine powder is performed the following way. Any extracted tooth with a living pulp is freed from the enamel by grinding and the periodontal shreds are scrubbed from the root. The tooth is then dropped into 10% formalin. After some

time we take it out and work on the dentine with a sterile, large round bur over a sterile petri dish. Dentine powder falls into the dish. We mix this powder with the sulphathiazole-sulphanilamide paste 50-50 and fill the mixture into a sterile tightly closed container, that does not allow the paste to dry out.

In root canal work we provide the same dressing to the connective tissue at the apex. Histological examinations of such pulp canal work in dogs revealed that the canal entrance at the foramen is closed by formation of hard tissue. The dentine particles offer the nuclei around which additional hard tissue is formed. This seems to be the only biologic reasonable way to repair holes in the tooth stoppers which expose the connective tissue of the pulp.

HYP- AND HYPERFUNCTION OF THE PARATHYROIDS

Attention should be called to two experiences with periapical areas in the x-ray picture. Both are connected with the function of the parathyroids. These glands of internal secretion are known to be in charge of maintaining a proper calcium level in the blood which is necessary for an adequate function of the muscles. If they are removed, for instance, in goiter operation, tetany results. The muscles are under constant irritation and only constant calcium supply to the blood or injection of parathormon can help. A hypofunction of the parathyroids happens sometimes in children where a continuous drainage of the calcium supply from the blood lowers the calcium level and tetany results. Drainage of the calcium supply during development of enamel, preventing proper calcification, produces enamel hypoplasias. The characteristic finding in hypofunction of the parathyroids is a lowered calcium level in the blood.

If, however, a hyperfunction of the parathyroids is present, like in adenomas of the parathyroid, the calcium level of the blood is raised. The overabundance of the parathyroid hormone

draws continuously calcium from the bones, the calcium store house of the body. The surplus calcium of the blood is continuously eliminated through the kidneys and new quantities of calcium are drawn into the blood from the skeleton by continuous bone resorption. That results in weakening of the skeleton and in developing of spontaneous fractures. The bone resorption may affect the periapical areas and suggest periapical infection. It is mostly to be found in several teeth and an electric pulp test will reveal living pulps. A blood test of the calcium level will show it higher than normal and suggest the proper diagnosis. After the adenoma has been removed by operation, a repair of the resorbed areas will develop. A decrease in height by collapsing of vertebrae cannot be corrected.

Another connection of radiologic areas with the parathyroid was found by Weinmann in Chicago. In several cases of kidney trouble, areas of rarefaction were found in the mandible. The diagnosis was that the primary focus in the mandible caused the kidney trouble. A post mortem histological examination revealed that a localized osteitis fibrosa developed in the mandible, caused by a hypertrophy of the parathyroids, which in turn is known to develop in some kidney trouble. The kidney disease was primary. Similar misinterpretations did a lot of harm to our profession.

THE ACID COMPONENT OF CARIES IS MOSTLY BENEFICIAL

Acid was introduced as dominating the aetiology of dental caries at a time when the enamel was considered as being an entirely calcified material. For the sake of this supposed quality of the enamel, acid became a favourite cause of dental caries. It was admitted that proteolysis may start to act on dentine after it is decalcified. It was known as being calcified only to one-third. But in the entirely calcified enamel it was considered to be common sense that acid was to be looked upon as the only

possible factor. The result of recent studies of histology of dental caries was surprising. It turned out that the action of the acid component of the caries process on enamel is exclusively beneficial. The teaching that, in caries, the enamel has at first to be dissolved by acid in order to expose the dentine to the carious process should be forgotten. Not a single histologic finding substantiates that! This confusion prevented a proper understanding of the problem of abrasion. In caries only the small quantities of acid which are produced by the acidogenic microorganisms have to be considered. The dissolved calcium salts are replaced by the bodies of the microorganisms and soft, shrinking enamel may result. The enamel thus affected has been found to be more resistant to acid. As far as our experience goes, not a single case could be observed in which enamel has been dissolved in connection with caries. *It may be said that acid in the caries process increases the resistance of enamel to caries and that caries increases the resistance of enamel to acid.*

It is common sense that under these conditions acid cannot cause caries of enamel.

ABRASION

Acid coming from outside is a factor in the aetiology of abrasion. When abrasion of enamel is observed we have to look always for some acid action, especially fruit acid. Enamel is more sensitive to acid than dentine. When the softer dentine appears more affected in cases of abrasion, like in the cases of wedge shaped tooth waste at the cemento enamel junction, we find the neighbouring enamel being more resistant. In such cases we have to look for mechanical reasons, like faulty tooth brush technique. If tooth substance is decalcified and the tooth brush removes the decalcified parts right away, the smooth abrasion results.

CHALKY ENAMEL

Another result of acid action is chalky enamel. It is apparently the

result of a slight acid action not going far enough to dissolve it. It is probable that the source of this acid is bacteriological.

We know now that it is safe to assume that a reliable barrier of transparent enamel is erected everywhere under chalky spots and lines in thick enamel. This self-limiting barrier prevents any invasion into the deeper layers. If brownish discolouration has developed on top of a chalky spot, or line, we can be sure that it will also be prevented from penetration into deeper layers. Every dentist should be warned not to start cavity preparation in a chalky enamel, not even if it has turned brownish. We hit very soon the stone hard layer of transparent enamel and will regret, too late, having started the job. If surface roughness develops we may smooth and polish the place and impregnate it, replacing the lost calcium salts by zinc salts.

THE ONLY DAMAGE PRODUCED BY ACID IS SHRINKAGE OF THE DENTINE

The only damage of acid connected with caries is done to the dentine. That is explained by the fact that dentine shrinks by acid action, in somewhat greater quantities. In small quantities, it also erects a barrier and great benefit results. If the acidogenic microorganisms penetrate the enamel, leaving it physically intact, and reach the dentine which is rich in food resources, they multiply and produce much acid. That produces shrinkage of the dentine. The result is different if this shrinkage of the dentine develops under the thick enamel, or under the thin enamel margin. In the latter case, the thin enamel remains unsupported, breaks away, and we are confronted with the mysterious fact of blunt enamel margins. If, however, the shrinkage of the dentine develops under thick enamel, a vacuum is created into which tissue fluid from the neighbourhood is aspirated. Here the microorganisms have an excellent culture media and therefrom invade the enamel and the dentine.

THE ONLY THING WE SEE IN THE X-RAY IS THE RESULT OF ACID ACTION

This clarification of the acid action in its relationship to caries is of great diagnostic importance. In the x-ray we don't see the caries process proper as long as no necrotic cavity is developed. The beginning caries is characterized by the yellow pigmentation in the enamel as well as in the dentine. The histological structure of the tissues is maintained. Only when these tissues become necrotic the calcium salts are freed and disappear somehow. This disappearing of the calcium salts shows up in the x-ray.

Fortunately the caries process proper is accompanied by acid. This acid action shows up in the x-ray. The place of shrinkage as well as the neighbouring decalcified area produce radiolucency. It is in the beginning sharply outlined at the border of the far less affected enamel. The area is limited to the dentine. The examination of the degree of decalcification of the enamel, in the x-ray is of no importance. The enamel may even show a defect in the x-ray. Such a defect does not call for cavity preparation as long as the dentine beneath is intact. Even if a defect is found by an explorer we may smooth, polish, and impregnate. Everybody has seen arrested enamel caries. The contact conditions may call for cavity preparations, but that is not going to be discussed here. If however, the dentine appears affected, with no break in the enamel, the overlying enamel is chiseled away, as we well know, and the affected dentine is exposed.

Such cases are encountered by the dentist daily and demonstrate how unreasonable it is to consider that acid action is important in caries of enamel. In histological decalcification with acid the higher calcified enamel is destroyed while the dentine remains intact for histological examination. That is the opposite of our experience in caries. The opposite of acid action is proteolysis.

CLINICAL APPLICATION OF HISTOLOGIC
KNOWLEDGE

It is of decisive importance for the general dental practitioner to know that the ideas of a barrier of hypercalcification are not merely of theoretical value. Everybody is familiar with the yellow-brownish spots on intact enamel surfaces, especially at the contacts. They may develop occasionally into a cavity, but as a rule they remain unchanged until the end of the life time of the tooth. Such spots are arrested enamel caries. Especially in the areas of thick enamel, the microorganisms often do not succeed in reaching the dentine. Either they die of starvation in the poor soil of the enamel or a hypercalcified barrier of transparent enamel is encountered.

More impressive clinically is the formation of a barrier of hypercalcification in the dentine. Our clinical experience shows us daily extremes which are difficult to understand without the proper background of knowledge. Sometimes we examine the teeth of a child clinically and by x-ray and find everything perfect. We ask the patient to return for the next examination in six months. Sometimes the patient returns before, complaining of spontaneous pain indicating an affected pulp. A new caries reached the pulp in a very short time. Some time ago, a child presented itself with a fistula between the roots of a lower first molar. The electric test showed a necrotic pulp. The clinical examination revealed an intact crown. The first guess was trauma. We know that trauma may necrotize the pulp in a front tooth quite often, but rarely in a molar. X-ray revealed invasion of the intact enamel into the dentine with calcification of the peripheral part of the dentine while the dentinal part remained intact radiologically. The necrotizing microorganisms of the caries process had reached and necrotized the pulp not hitting a barrier of hypercalcification, erected by proper acid action. The produced acid failed to do it.

Other instances that need explanation are the cases of children who exhibit arrested, hard, black dentine caries on the occlusal surfaces of the first molars while all other teeth are free of any sign of dental caries. Apparently the quality of the saliva improved rapidly after eruption of the first molars. They were invaded and caries started before the invaded dental tubuli were obstructed by the calcium salts of the saliva. The microorganisms lost their living space and the caries process stopped. The necrotic dentine separated from the hardened area. The same quality of the saliva obstructed the entrances to the organic invasion roads of the other teeth making their enamel immune to invasion of microorganisms that produce dental caries.

ELIMINATION OF ACCIDENTAL PULP
EXPOSURE IN CAVITY PREPARATION

It is very useful to be in command of this category, that we may be able to perform cavity preparation on the basis of solid knowledge. Thus we can reduce the *accidental* exposures of the pulp to a very small minimum. Our procedure in preparing a cavity should be as follows: After chiselling away the overhanging enamel, it being more resistant to proteolytic action than the dentine, we remove the necrotic dentine with an excavator and find out if a hypercalcified barrier is present. In many cases it is. In such a case we encounter a hard wall, which is yellowish pigmented. The opaque, hypercalcified dentine is yellowish pigmented and we cannot offer an explanation for that. We prepare the cavity in comfort and never run into trouble of an accidental exposure of the pulp.

The situation is entirely different when we spoon out the necrotic content and encounter soft leathery dentine which we can remove with an excavator, layer by layer. The coherence in continuous layers means that it is decalcified, not yet necrotic, dentine, which retains its histologic structure. We all remember cases that after con-

tinued spooning out of such layers, a red spot appeared. We had exposed the pulp. Such experiences are definitely avoidable.

At first we have to settle the question which part of carious dentine has to be removed and which part can be salvaged. The term *carious dentine* is confusing. Most people call any soft dentine carious dentine. We are not going to start a detailed argument whether the term is justified or not. It definitely is not practical. It should be established that there is a decisive difference between *necrotic dentine*, which retains its histologic characteristics, and invaded dentine. Invaded dentine may have been decalcified by the products of the acidogenic microorganisms, or may have been pigmented yellow by the products of the proteolytic microorganisms. It has been already mentioned that the opaque hypercalcified dentine also appears yellow and can rarely be differentiated from the yellow pigmentation. If it appears hard, resistant to an excavator, it is safe to retain it. Any invaded, not necrotic dentine, can be salvaged and should be; especially when there is the risk of exposing the pulp. Nature has taught us this lesson by producing arrested dentine caries. In such cases all necrotic dentine is removed, the invaded dentine is impregnated with calcium salts, filling in all tubuli. Nature can handle only calcium salts and has no metals at its disposal. We can replace the calcium salts by impregnating with metallic solutions and precipitating them as metal salts. Following, the procedure is described:—

In the case of lack of a barrier, when we feel that we run the risk of exposing the pulp if we continue to peel off the decalcified dentine we stop. Dry the cavity with benzine; moisten it with *naccanol* solution and impregnate with a 50% zinc chloride solution and precipitate that with a 10% potassium ferro cyanide solution. We repeat the impregnation until ice water is not felt. That indicates that all roads to the pulp have been obliterated. The pre-

cipitated zinc ferro cyanide is water insoluble and obstructs the tubules permanently. It is even possible that some of these salts have been deposited in the dentine matrix replacing the calcium salts which have been lost by decalcification. In the deeper parts the circulating tissue fluid seems to continue to flow, being protected by the dressing of the impregnation. If we place a soft base, for instance, zinc oxide eugenol, and put cement on top we find, after three or more months, hard dentine upon removal of the temporary filling. The circulating tissue fluid, apparently by way of the cross connections has deposited calcium salts into the previously soft dentine. We can proceed in making a permanent filling without interfering with the pulp. Secondary dentine may have been deposited in addition.

COAGULATION FOLLOWED BY PRECIPITATION DOES NOT CAUSE IRRITATION

Experiences in the past tell us that some attention should be focused. It was claimed from one side that this method kills the pulp. We have to make sure that the pulp is not becoming necrotic already at the time when we make the impregnation. Impregnation cannot make a pulp return to life. In most cases a careful questioning will furnish all necessary information. If the patient reports that the tooth is sensitive to cold but does not cause spontaneous pain we may be pretty sure that the pulp is not affected. If, however, the patient reports that the tooth caused spontaneous pain in the last few days very careful procedure is indicated. We have no means of finding out whether the pulp is just in the first stage of inflammation, which can still be checked, or if small portions are already damaged to the stage of necrosis. In such a case the pulp cannot be salvaged, the necrotic part must be removed. An electric pulp test is urgent. If the test is still positive we may take a chance. If the tooth remains quiet during the next three months and the pulp test is positive, the pulp has been

saved. The pulp may, however, become necrotic. It is good to inform the patient beforehand that the procedure is not a certainty, and that the decision will be made three months later.

If the dentine layer covering the pulp is so thin that the pulp shows through pink, we may still save the pulp by impregnation. We have to realize that the zinc chloride is a caustic, coagulating protein. As soon as it is precipitated it cannot do harm anymore. In cases of such a thin dentine layer, especially in deciduous teeth, the zinc chloride should be precipitated quickly in order not to allow the caustic to penetrate to the pulp before precipitation. We may, instead, repeat this procedure often. Proceeding that way we avoid pulp irritation. In using any silver nitrate, including an ammoniacal one, we do not stop the penetration of the caustic action. The precipitation of ammoniacal silver nitrate with formalin or eugenol precipitates the silver but does not precipitate the silver nitrate.

SALIVA

We all know that there are many children who are naturally immune to dental caries, no matter how many sweets they enjoy. At the first approach to this problem we may say that some people have teeth which erupted without leakages and others had them erupted with leakages. But closer observation reveals that the situation is more complicated. Most people become caries immune around twenty; and thereby retain the same teeth which were previously susceptible to caries. Some more rare observations show that children may be immune to dental caries for some time, but become susceptible after some sickness. Most impressive are those cases of people around fifty who have lived for decades under great stress, then break down, somehow. Some of the people develop caries of exposed roots, which may be so rampant that the teeth cannot be saved. The enamel covered crown appears to have been so immunized in the

past that the caries process is limited to the later erupted root surfaces. The possibility of the quality change from inside, by way of the pulp, has been discussed. It may suffice to report that this possibility has been dropped as untenable. The only remaining possibility is the change of the tooth surface through the instrumentality of the saliva.

Considerable work has been done in exploring the chemistry of the saliva. The most primitive part of the work is that which concerned itself with investigations of the pH of the saliva. As long as we were made to believe that caries is acid action, it seemed common sense to suspect that the saliva, which is the environment of the tooth, may vary in its acidity and thus form the background for development of dental caries. It turned out superfluous to do this research.

It was suspected that the quantitative calcium content of the saliva might exhibit variations and might thus cause variations in the susceptibility of the teeth to dental caries. It seems that this approach was not adequate. Nature has more delicate tools to work with. As a rule mass offers to the tissue are not made. Nature works mainly with catalyzers. Minute quantities of such material are adequate to decide the course of a chemical reaction, needing only small quantities of raw material. These catalyzers are the *enzymes*. The vitamins and the products of internal secretion work the same way.

H. Eggers-Lura of Denmark, in his revolutionizing studies on enzymes of the saliva found more than ten different ones. The qualities of most of them point to the purpose of biologic cleaning of the mouth. It is probable that those cases of bad breath which have their source in the dorsum of the tongue may be traced back to a poor enzymatic quality of the saliva. Smelling scrapings of the dorsum of the tongue will reveal the source. This same author found that the enzymatic content of the saliva is highest in hunger. At present the utmost we can

do is recommend eating only after the feeling of hunger has been experienced. But it is quite possible that some people cannot produce some enzymes at all. We are on the threshold of knowledge in this direction.

In addition to the enzymes which point to the biologic cleaning, Eggers-Lura found phosphates and enzymes which are known to be connected with the process of calcification. It may be that these enzymes are the important components of the saliva which obstruct or open the organic invasion roads to the inside of the teeth. It is obvious that nature can obstruct such invasion roads only by calcium deposition. People who are caries immune by nature, have apparently obstructed these invasion roads by calcium salts, aided by a favourable quality of the saliva. This deposition seems not to be governed by the amount of calcium in the saliva.

SALIVA COMPARED WITH THE LACRIMAE

The saliva is best compared with the lacrimae. These constantly clean our show window, the cornea, which is a relatively easy job. The cornea has a smooth surface and the fluid of the lacrimae is constantly washing this surface, being carried around by the eyelids. In vitamin A deficiency, when the lacrimal glands degenerate, *Xerophthalmia* (dry eye) results. Very soon inflammation of the cornea results, and the eye is lost. We encounter sometimes in people a similar condition in the mouth, called *Xerostomia* (dry mouth). Without a single exception the teeth decay rapidly. The flow of the saliva takes care of the tooth surfaces to be benefited, by the washing and bathing of the saliva. Only the smooth labial surfaces of the front teeth can be washed similar to the cornea. The lips replace the eyelids. We know how well protected these parts are. In the approximal spaces this washing is poor. We know how much more they are affected in cases of caries susceptibility. The depressed cervical portions are also poorly taken

care of. In addition, everything that we take in as food passes the mouth, even much of the air that we breathe does the same. The protection of the mouth by the saliva must be worked out meticulously. That we do not know much about this is due to our ignorance and that is not the fault of nature.

Two instances of clinical observation may illuminate this relationship of saliva and caries. Every dentist has observed that, as a rule, the lower front teeth are relatively more resistant to caries in the average mouth. If, however, a rampant caries had developed, these teeth were affected very much. The following explanation seems to be adequate. Our head position is such that saliva always covers the lower front teeth. If the quality of the saliva is adequate these teeth are protected mostly. If, however, no protecting qualities are contained in the saliva, the lower front teeth are affected by caries at least as much as the other teeth. In the British Dental Journal, January, 1947 issue, Hugh Miller Biggs called attention to the cases of unilateral caries, in which he found that the affected people sleep habitually on the caries free side. He explains, apparently correctly, that the affected side is depleted from the protection of the saliva, running continuously down and taking care of the caries free side. He reminds us, too, of the protection of the lower front teeth, which are constantly bathed in saliva.

SALIVA COMPARED WITH FLUORINE ACTION

The principle of obstruction of the organic invasion road by calcium deposition from the saliva, governed by enzymatic action, is apparently similar to the protection from caries by fluorine. Fluorine works like an enzyme by attracting calcium from the surroundings. The fluorine problem will be discussed on a broader basis. Here, only the relationship between fluorine and caries will be mentioned. Whenever organic invasion roads are fluorinized by coming into contact with the water soluble sodium fluoride, calcium from

the surroundings is attracted and the invasion roads are obstructed to some degree by formation of the water insoluble calcium fluoride. To produce reliable obstruction by topical application of sodium fluoride is rather difficult. One author carried on the experiments of topical application with the purpose of caries prophylaxis for two years and succeeded in reducing the incidence of caries by about 30 per cent.

SENSITIVITY OF DENTINE AND CARIES ARE BASED ON SAME PRINCIPLE

About the ability of a chemical to obstruct the caries invasion roads we get quick information by testing it on its ability to desensitize sensitive dentine. Sensitivity of dentine and caries susceptibility are based on the same principle. In sensitive dentine the dentinal tubuli must be obstructed and in caries prophylaxis of the enamel the lamellae and the prism sheaths must be obliterated. Sensitive dentine may easily be desensitized by application of 50% zinc chloride which coagulates the protein of the tooth and that is followed by the precipitation with 10% potassium ferro cyanide. The 2% sodium fluoride recommended for topical

application in caries prophylaxis has no influence on sensitive dentine whatsoever. For desensitization of sensitive dentine a 33% sodium fluoride paste has been recommended, which, of course, does not contain any calcium. The use of such a potent poison is out of the question in caries prophylaxis. We can judge the value of a method recommended for caries prophylaxis by its ability to desensitize dentine.

If the dentinal tubuli are obstructed by calcium deposition, producing opaque dentine, this dentine is never sensitive and caries resistance is established. Arrested dentine caries, showing a hard, dark surface is based on this principle. The main condition is not the fact that the surface is polished but rather the complete obstruction of the dentinal tubuli. Some carious cavities reach the pulp in no time, while others may remain open for decades and do not expand. Their walls have become opaque by filling in of the dentinal tubules with calcium salts, thus being obstructed. The caries process has been walled off by a barrier of hypercalcification, which is proved as such in the Grenz ray examination.

(To be concluded)

"A friend is one to whom you can pour out your words just as they are, chaff and grain together, knowing that a faithful hand will take and sift them, keep that which is worth keeping, and with a breath of kindness blow the chaff away."

"Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report: if there be any virtue, and if there be any praise, think on these things."—Phil. 4-8.

Dentistry should be very happy over the changed outlook that has developed within the last few years. It has been said, "A profession becomes a profession when it is so recognized by the public." Then let us make the public conscious of our work, our efforts, and our determination to succeed in our research. Let us always work toward new ideas and improved techniques.—EDWARD L. BALL in Dental Survey.

The Forum

NUTRITION AND DENTAL HEALTH

How to Avoid a Famine of Quality

by SIR ALBERT HOWARD, C.I.E., Editor of Soil and Health

Condensed from Br. D. Jour., July 18, 1947.

Western civilization is suffering from a subtle form of famine—a famine of quality. This has arisen not from insufficient food to maintain that half-way house between robust health and death (so well described as a living death) which is now so common, but from the poor quality of our nourishment. One consequence of this malnutrition is to be seen in the steady growth of dental troubles.

The realization of the fact that our most important crop is not so many measures of wheat or so many gallons of milk obtained in the cheapest way, but a race of healthy human beings with sound teeth, is therefore only a question of time.

What is the cause of this famine of quality and how does it operate? If we could answer these questions the door to preventive medicine might be open.

The crux of this matter is to be found in the proteins, looked at in the mass. This collection of complex substances forms the matrix of the structures of all living things—plants, animals and man, as well as the microscopic forms of life. Life resides in the proteins. These bodies then help to confer on the organism the power to reproduce the species and to resist the invasion of parasites of all kinds. Proteins are therefore the master substances in life. They all originate in the green leaf and are created from simple substances—carbon dioxide, oxy-

gen and the materials carried up in solution in the sap of plants—by means of the chlorophyll corpuscles and the energy of sunlight. Here we see the atom bomb factory (the sun) in perpetual action, and the creation of complex organic substances starting from carbon dioxide. These organic substances—starches, sugars, fats and proteins—must be looked upon from two aspects: (1) the stored energy they contain, and (2) the chemical elements which go to their formation. The organic materials made by the green leaf constitute the only source of food for all living things. They are also the basis of the power stored up in coal and in oil. There is no energy stored in artificial manures like sulphate of ammonia.

The importance of the proteins made by the green leaf needs no argument. What happens if this item in our food is neglected? The answer is disease, including the diseases of the teeth. Disease in one form or another follows from any neglect in providing the green leaf with the proper materials for synthesising stable proteins. Should this happen the huge protein molecules become weak and unstable: pieces may easily be broken off: these we call viruses. Viruses are therefore not the cause of disease but rather the indications of a famine of quality.

Two main causes are responsible for the production of unstable proteins: (1) growing crops on worn-out soil and

(2) introducing into the nitrogen cycle a substitute for humus in the shape of chemical fertilizers. Both these practices create a weak link in the protein chain between the soil and the plant which is carried forward to the animal, to mankind and then back again to the soil. Obviously attempts to put this right at the human end of the protein chain, by the help of a national health service, are bound to fail. *The new national health scheme therefore merely tinkers with trouble after it has happened and does nothing to get to the root of the mischief—the soil.*

To put an end to the present-day famine of quality we must follow in the footsteps of Medieval England and restore the fertility of our worn-out and over-stimulated soil. At the same time we must provide a supply of whole-wheat bread from humus-filled soil. To achieve these two results the humus content will have to be rapidly increased. Attention must also be paid to the quality of this humus.

The greatest danger to avoid in future work is fragmentation—that curse of science, of administration, of education and of our present way of life. It has arisen because knowledge has grown at the expense of understanding. The inevitable result has been a plague of so-called experts, for the most part men and women who have wasted their lives in learning more and more about less and less, all sublimely unconscious of the fact that at the end of the road along which they are travelling will be found the ideal expert—an individual who knows everything about almost nothing.

In the dental investigations of tomorrow therefore, there must be no

fragmentation. It must never be forgotten that our teeth are joined up with the solid framework of our bodies and are therefore part and parcel of mankind. They cannot therefore be considered apart and as a closed subject in themselves. Any diseases to which they are subject are mere symptoms of some deeper cause, one of the most obvious of which is the malnutrition which results from improper feeding. It may very well turn out to be the chief cause. It follows, therefore, that the dental investigations of the future must embrace the protein chain from the soil to man and back again, and the investigators must see to it that no defects in this cycle occur.

This brings the investigator into contact with the soil. The land which produces the food must be in the best possible fettle. The produce of that soil must reach the stomach fresh, whole and unsophisticated.

So much for the soil and its products. But what of the patient? Similar considerations apply. The patient, as is well known, contains reserves tucked away all over the body. Before a condition of robust health is reached these reserves must be raised to such a pitch that *under normal climatic and other conditions the power to resist infection is the rule.*

Only when real food is available and when the patients are fighting fit has the time come to observe the relation between nutrition and normal healthy teeth. If the investigation begins before these two conditions are satisfied the soil and the patients are both in a pathological phase and there is no firm base line from which the results can be measured.

ROUTINE USE OF SEDATIVES FOR LONG APPOINTMENTS

by R. S. BRADY, St. Paul, Minn.

Condensed from Jour. of Michigan State D. Soc., July, 1947.

There are many reasons why I enjoy using sedatives, but the chief advantages are: conservation of the time and energy of the dentist, assistant,

and also the patient; ease of doing dental procedures; improvement in quality of dental work; comfort to the patient; and elimination of demand for late

afternoon and evening appointments. I feel that sedatives are a *must* in all cases of hypertension and cardiac deficiency.

If the work is to be done by long appointments, it is surprising how easy it is to estimate the amount of time for the case. Next the prescription is given with the necessary instructions. I explain that an adult must accompany the patient as he doesn't always have complete muscle control, nor is he able to make sound decisions. I also instruct my patients to fast, that is, no breakfast if the appointment is in the morning or no food for about five hours if it happens to be an afternoon appointment. I try to make most of the long appointments in the forenoon. I also explain that sleepiness will exist after the appointment and if particularly noticeable, I encourage the patient, if adult, to take five grains of aspirin, a hot water bottle and go to bed. A few hours of sleep is an excellent thing. I always warn the adults not to take any alcohol when under the influence of the sedative, as its potency is greatly multiplied.

I use seconal as the sedative as it belongs to the group of barbiturates

that are fast acting and of short duration. For adults I usually give one and one-half grains. I often vary this dosage and give the husky out-of-door individual three grains. For aged adults or those of lowered vitality, I will give as little as three-quarters of a grain of seconal. If a lack of sedation exists after half an hour, I may give additional three-quarters or one and one-half grains. For children between the ages of three to six, three-quarter grains usually gives the degree of sedation I desire. With children I have the sedative administered at home about twenty minutes before the appointment, recommending the sedative being mixed with jelly to make it palatable. For adults my usual instruction is to take it at home about fifteen minutes ahead of the appointment. If this is not feasible, they may come early and take the sedative in the office. Quicker onset of the sedative is possible by puncturing the capsule or emptying the contents into flavoured water. I find the quicker the onset, the shorter the duration and the greater degree of sedation exists.

By using sedatives with long appointments, I find I can plan my work and work my plan.

STOMATITIS AFTER ADMINISTRATION OF PENICILLIN

by JOSEPH FARRINGTON, M.D., Durham, N.C., DAVID ABBOTT, D.D.S.,
and JAMES M. GLENN, D.D.S., Cincinnati.

Conclusions of paper in Jour. of Oral Surg., April, 1947.

1. The reported incidence, symptoms and types of allergic reactions to oral administration of penicillin have varied widely but have included cheilitis, stomatitis venenata and glossitis. Case reports are accumulating in the British literature describing black tongue and other evidence of nicotinic acid deficiency associated with treatment with penicillin by mouth. All other causes for stomatitis and lingual discoloration should be ruled out before ascribing these changes to penicillin.

2. Penicillin stomatitis venenata is

similar to stomatitis caused by other contactants. Suitable techniques have been described and should be employed in contact testing the buccal mucosa before treatment is instituted or for differential diagnosis of the various types of stomatitis.

3. Evidence of avitaminosis and the apparent susceptibility of the mouth and face to hypersensitivity reactions from contact with penicillin should be investigated more thoroughly. — *Duke Hospital.*

DEGENERATIVE DISEASE ASSOCIATED WITH AGE

by WILLIAM B. KOUNTZ, M.D.

From the St. Louis City Infirmary Hospital and Washington University School of Medicine, Saint Louis, Missouri.

Condensed from Medical Times, April 1947.

In the diseases toward the end of life, the so-called degenerative conditions develop and it is necessary that they be recognized early in the process and that one not wait until an acute episode has occurred before treatment is begun, because it may be irreparable. It is needless to say that an individual with advanced arteriosclerosis probably cannot be treated medically with success except in a palliative way. It is necessary, therefore, in a great group of conditions beyond mid-life to view them not from an anatomical but from a physiological viewpoint. Medicine must go far in recognizing the disturbed function of the body that leads to degenerative changes and preferably treat the patients at a much earlier state than when there is total decline due to acute episodes.

The problem of health in the older individual is now becoming more pressing since the control of infection by means of chemotherapy and other methods has caused the population to grow older. There are many older people in whom the incidence of invalidism is high.

Such conditions as arteriosclerosis, coronary thrombosis, hypertension, arthritis, kidney disease or nephritis as well as many other diseases may be brought under control and prevented as smallpox and typhoid are prevented today. The old quip of "pick your ancestors to live a long healthy life" applies today but the modern concept of it is, after forty-five years of age, "pick your doctor who knows geriatrics".

It is known that in many people between the ages of thirty and forty significant changes begin to occur in the body tissues which indicate that early degeneration has begun. We have found that there are methods to recognize early changes. As in child-

hood and youth, nutrition plays an important part in the older person's health. Such a thing as adequate diet is important, but in older people there are additional mechanisms which have to be taken into account. These mechanisms are a normal working intestinal tract, normal functioning glands of internal secretion, as well as adequate kidney excretion. All of these factors must be evaluated in understanding the health of older people. It has been our experience that with proper evaluation of the individual, a more rational form of therapy may be administered.

We believe that individuals decline or age in different ways, or in so-called patterns. Some lose partial function of one or more organs of the body, which in turn results in a state of decline of total function which is usually peculiar to a certain percentage of individuals. Other individuals decline more uniformly. This latter group shows a uniform exhaustion of the tissues. It is this group which appears to remain in the best health for the longest period.

We have been able to improve the health of chronically diseased individuals in this institution and its adjacent hospitals by studying nutritional needs. Usually, the best results come from understanding and correcting the chemical and physiological balances of the body with hormonal substances.

As far as diet is concerned, a high protein intake, above the standard of one gram per kilogram of body weight, plus a high carbohydrate intake, is usually the best diet for most individuals past midlife. A high fat diet, in our experience, has been associated with rapid vascular degeneration. Protein is an important food and the physician must know how it can be best administered so that it will be utilized.

The problem of decline is, therefore, one of a complicated biochemical and physiological, as well as physical, study. It differs from the problem of youth and growth in that the physician must recognize and treat declining function of the organism as well as administering proper food stuffs.

Aside from direct medical therapy, physical and occupational therapy in one form or another is an important adjunct in the treatment of chronic disease. In the process of treatment,

many oldsters are benefited by graded physical activity and physical training.

Much more attention should be paid by hospitals and medical schools to the field of geriatrics. It is important to train physicians who are on the alert for early changes in order to prevent severe disease. Once severe disease has occurred special forms of therapy must be instituted to rehabilitate the individuals. The best solution, by far, to the problem of chronic disease associated with age is prevention.

THE EFFECT OF STREPTOMYCIN ON THE PATHOLOGY OF GENERALIZED MILIARY AND MENINGEAL TUBERCULOSIS

by ARCHIE H. BAGGENSTOSS, M.D., M.S. in Pathology, Section on Pathologic Anatomy, WILLIAM H. FELDMAN, D.V.M., M.Sc., D.Sc., Division of Experimental Medicine, Mayo Foundation, and H. CORWIN HINSHAW, M.D., Ph.D., Division of Medicine.

Conclusions of paper in Proceedings of Staff Meetings of Mayo Clinic, July 9, 1947.

Clinical, roentgenologic and pathologic observations on four cases of fatal miliary tuberculosis treated with streptomycin are reported. Evidence of regression and healing of the miliary tubercles in the lungs was observed roentgenologically in four cases, ophthalmoscopically in the choroid layer of the eye in two cases and histologically in the lungs and liver in four cases and in the spleen in three cases. The development of widespread tuberculous meningitis apparently was

inhibited in one case and either prevented or cured in two other cases. No histologic evidence of any toxic effect of the drug could be found with the possible exception of renal tubular damage which occurred in one case. These observations offer further encouraging evidence of the therapeutic efficacy of streptomycin in tuberculosis. They also offer some hope for the effective treatment of two hitherto consistently fatal forms of the disease.

DENTAL IDEALS IN BRITAIN

As a nation we are poor, and yet may be poorer. Nor will dentists be spared a lowering in their standard of living. Moreover, those who by choice, or force of circumstance, enter the State service will, in many cases, find themselves financially worse off. Yet, "as a civilization is judged, not by the wealth which it accumulates, but by the values it acquires," so the new dentistry will ultimately be judged, not by the remuneration of its practitioners—important as that may be; not by the numbers of dentists it employs, but by the way in which it adheres to the values of its ethical training. It is our first duty to ensure that the future practice of dentistry, in whatever form, will never permit the loss of those values, whether for the advancement of the individual or to gain for others the cheap applause of the electorate.—Edward Samson, President Br. D. Assoc.

"Friendship bath the skill and observation of the best physician, the diligence and vigilance of the best nurse, and the tenderness and patience of the best mother."
—Clarendon.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Wayne, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgcombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

Editorial

DENTISTRY MARCHES ON

Before me lies a copy of the *Dental Cosmos* dated March, 1860, Volume 1, No. 8, a gracious gift from Mr. Charles A. McKenna of the S.S. White Co., who for over fifty years has rendered faithful services to the dental profession as well as to the Dental Trades Association.

One has only to peruse the pages of this eighty-seven years old dental Journal to realize just what progress has been made in our profession within the lifetime of some dentists still living. The progress in the field of equipment is clearly shown in the accompanying cuts taken from this Journal.

In an article entitled "Practical Hints" by the editor, J. D. White, M.D., D.D.S., it is pointed out that he never enlarges the natural canal of the "fang" of the tooth, since he regards that which is out of reach of his usual instruments as being in neutral ground and that nature will take care of it better than he can. He then describes how to fill these canals with gold foil in such a manner that it can be removed, if necessary. He never attempts to "plug the roots" of a molar tooth but just fills the bulbous portion of the pulp cavity. It is in the front teeth that special care is taken.

In another article the same writer, in discussing the problem of "Sensitive Dentine", states that there is nothing connected with our art so important as controlling the sensitiveness of dentine and that for highly nervous patients something must be done about it. He recommends placing a small quantity of dry arsenious acid in the cavity and placing over it a little soft yellow beeswax, leaving for twenty-four hours. At the expiration of this

ASK'S PATENT DENTAL CHAIR!

An Elegant and Highly-Ornamental Piece of Furniture.



Patented January, 1859.

PERKINS' PATENT DENTAL CHAIR.

time, he states that the decay can be cut out without difficulty and the tooth "plugged" successfully. The writer states further that when a pulp dies following this treatment, it is because the remedy has been injudiciously applied or is owing to a peculiarly impressible condition of the parts to the action of that substance; that all this goes to show that there are peculiar conditions of the teeth which have not been the subject of study.

Another writer describes a death by suicide as the result of a severe neuralgia caused by an impacted third molar, discovered in the post-mortem examination.

In this copy of the *Cosmos* the following scale of "prices" was recommended to the members of the Indiana State Dental Association:— Removing tartar, \$1.00: Destroying nerve and filling fang, \$3.00 to \$5.00: Extracting, .50c to \$1.00: Inserting pivot tooth, \$3.00 to \$12.00: Full set on gold, gum with rim, \$125.00 to \$200.00: Full set in vulcanite \$100.00 to \$150.00: Filling smallest cavity with gold \$2.00, for large filling including fang, with gold, \$6.00 to \$25.00: Professional visit, \$1.00 to \$3.00. In these earlier days, dentists, at least, placed some value on consultation which is too commonly overlooked in our day. Other fees were mentioned, the above being but illustrations, however, it is interesting to note that no mention is made of amalgam. It is apparent that at this time organized dentistry had not yet reached the point where it could conscientiously recommend the use of amalgam in the mouth as a filling material. We would recall that the Crawford brothers, two French empirics, arriving in New York in 1832 from London, England, introduced amalgam consisting of filed French five-franc pieces (silver) mixed with mercury, under the name of "Royal Mineral Succedaneum". Their unscrupulous methods of practice were the cause of the "amalgam war". At a meeting of the American Society of Dental Surgeons in 1843, a motion was passed declaring the use of amalgam to be malpractice. This motion was rescinded by the Society in 1850 which officially ended the "amalgam war", however, it could not have been in general

use ten years later or some mention would have been made of the recommended fee for such a filling.

The following colleges carried advertisements in this Journal:—Baltimore College of Dental Surgeons, Pennsylvania College of Dental Surgeons and the Ohio College of Dental Surgery.

At this early time the dental profession was on its way. Problems were presenting themselves and were being solved to the best of the ability of the practising dentist. But how much they didn't know! And one wonders, in fact I think one can be assured, if this old earth is still carrying on, that eighty-seven years from now the members of our profession will read about the procedures in 1947 with a smile on their faces.

M. H. G.

BOOK REVIEWS

Oral Medicine, by Lester W. Burket, M.D., D.D.S., Professor of Oral Medicine, The Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania, and professor of Oral Medicine, Graduate School of Medicine, University of Pennsylvania; With a section on Oral Aspects of Aviation Medicine, by Major Alvin Goldhush, D.D.S., M.S., A.U.S., 350 illustrations including 60 in colour on 10 plates. 674 pages. Published by J. B. Lippincott, 2083 Guy St., Montreal.

In this book the author does not attempt to cover the entire scope of Medicine but rather to give the dental practitioner a sufficient knowledge of the subject that he may adequately fulfil his professional responsibilities to his patient and co-operate intelligently with the physician. Emphasis is given to systemic diseases with oral manifestations and significance with up-to-date discussions of the aetiology, diagnosis and treatment of the various lesions encountered.

The book is divided into eleven sections, the titles of which follow—"General Considerations," "Fusospirochetal Infections, Metal Intoxication and Intolerance," "Diseases of the Tongue and Dermatologic Diseases of Dental Interest, Minor Stomatitides," "Diseases of the Organ Systems," "Nutritional Deficiencies and Diseases of Metabolism," "Diseases of the Blood and Blood Forming Organs," "Specific Infectious Granulomata," "Focal Infection, Dental Pediatrics and Gerodontics; Hazards of Dental Practice; Dental Diseases of Occu-

pational Origin;" Oral Aspects of Aviation Medicine;" A "Colour Atlas," with accompanying interpretative legends and finally a section entitled "Regional Diagnostic Index" which is a listing of the characteristic sites where systemic diseases with Oral manifestations usually appear.

This book is very valuable as a reference; it is well written, the material splendidly organized and each chapter is concluded by a good list of references. It is a book that can be read with pleasure and considerable benefit to any dentist.

T. R. M.

Theory and Practice of Crown and Bridge Prosthesis, by Stanley D. Tylman, A.B., D.D.S., M.S., F.A.C.D., Professor of Prosthetics, Head of the Department of Fixed Partial Dentures, University of Illinois, College of Dentistry, Chicago, Ill. Second edition, 960 pages, 1273 illustrations and 9 colour plates. Published by the C. V. Mosby Company, St. Louis. Canadian agents, McInsh & Co., Ltd., Toronto. Canadian price \$13.50.

The first edition of this comprehensive work was copyrighted in 1940 and now, seven years later, the text has been rearranged and additions made to include the newer developments in this field of dentistry. Major additions to the book include the use of Acrylic Resins and Crowns and Fixed Partial Dentures; "Colour Reproduction in Synthetic

Resins; Acrylic Resin Crowns; Acrylic Resin Fixed Bridges and Oral Rehabilitation.

The book is the more useful in that the author not only gives us the benefit of his own work but has been most thorough in gathering what he regards as useful from the work of many others as set forth in the current dental literature. Where he has used this, he has been careful to give not only credit for it but also the references are noted at the end of each chapter. While the various techniques

are carefully set forth, considerable space is given over to the "theory" in each section. This is of special value to the younger practitioner seeking guidance. In general, the principles laid down and the practical applications that follow are sufficiently conservative that anyone following them cannot go very far astray and will certainly be practising a very high grade of crown and bridge prosthesis.

*KENNETH M. JOHNSON.

CORRESPONDENCE

LEMON JUICE.

TO THE EDITOR:

I am writing regarding the article in the June issue of the Journal of the Canadian Dental Association on the "Dissolution of Tooth Substance by Lemon Juice." The article was a thought stimulator and I was glad to see a response in the August issue discussing the article. I would be very glad to hear from other sources in the matter and with this in mind, am adding my experience to that of many others.

I have been an advocate of lemon juice for years, often officially prescribing it to my patients with very comforting results in many cases. Of course, I have always been fully aware of what concentrated acid will do to a tooth and that often acid conditions already prevail in some mouths which condition in itself is destructive. We are agreed that acid conditions must not be permitted to prevail in the mouth, however, I prescribe one lemon in a full glass of hot water just before breakfast,

carefully instructing the patient to rinse the remaining lemon from the mouth. The amount of lemon juice which then remains in the mouth, I consider a good cleansing agent not more dangerous than many of the present day dentifrices widely sold to the public. More, the chemistry of the stomach transforms the lemon juice into an alkalizing agent which produces a systemic reaction of far greater significance than could be considered as dangerous in the taking of dilute lemon juice.

I myself am a lemon juice addict, using it daily without discomfort, and as I am well along in years, I feel that I would rather wear dentures than renounce the splendid health which I attribute to lemon juice. I feel that erosion is a problem aside from lemon juice and heartily concur with the article written in the August issue.

DR. CHARLES F. TULLY

2084 Logan Avenue,
San Diego 2, California

ROYAL CANADIAN DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF R.C.D.S. OFFICERS

Retirements:

Major R. C. Dunlop	Mar. 47	Toronto, Ont
Capt. V. Grant	Apr. 47	P.E.I.
Capt. R. J. Murray	May 47	Toronto, Ont.

"Two things bad for the heart: (1) Running upstairs. (2) Running down people."

"No great thing is created suddenly, any more than a bunch of grapes or a fig. If you tell me that you desire a fig, I answer you that there must be time. Let it first blossom, then bear fruit, then ripen."—Epictetus.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

Nova Scotia Increases Grant

At the last Annual Meeting of the Nova Scotia Dental Association, held June 24, 1947, a resolution was passed that the annual dues to the C.D.A. be increased from Five Dollars to Eight Dollars, this increase to become effective 1947.

Alberta Makes \$10.00 per Capita Grant

The following resolution was endorsed at the recent meeting of the Alberta Board:

"That the grant for the current year to the Canadian Dental Association shall be computed on the basis of ten dollars (\$10.00) for each member of our Association in good standing for the year."

"In view of the many factors largely of political significance reflecting on the administration of health services, this Board is convinced that the welfare of our profession depends on the maintenance of a strong national body."

Announcement of War Memorial Scholarship

As a memorial to Canadian Dentists who paid the supreme sacrifice in World Wars I and II, the Board of Governors of the Canadian Dental Association has established a War Memorial Scholarship Fund. The interest received from this Fund, which has been provided through the generosity of the members of the dental profession of Canada, will be used annually to award two prizes (a first prize of \$125.00 and a second prize of \$75.00) for the best essays upon a subject chosen each year by the War Memorial Scholarship Committee. This competition will be open to fourth year undergraduate students in attendance at dental faculties of Canadian Universities.

The conditions governing the award follow:

1. The contest is open to all undergraduates of the final year who have been in attendance for at least two years at Canadian Dental Schools.
2. The subject for the essay will be announced by the Scholarship Committee of the Canadian Dental Association to the

Dean of each school on or before September 30 of each year.

3. The Faculty Staff of each school will be responsible for the selection and submission of a maximum of three essays upon the named subject on or before April 25 of each year.
4. The essay may be written in either English or French.
5. The essay shall consist of from 2,500 to 3,000 words. The manuscript must be the original one, typewritten, double spaced on one side of the paper with liberal margins.
6. When photographs are used they must be glossy prints which permit reproduction.
7. All references and bibliography must be stated at the end of the essay. All quotations must be indicated. They should be numbered and appear in the same order as that of the superior figures in the appropriate position in the text.
8. Three judges will be appointed by the Committee on Scholarships of the Canadian Dental Association, each of whom will make an independent report upon each essay submitted. The decision of the judges will be final.
9. The basis of judging the essays will be:
70% for content
20% for composition
10% for bibliography.
10. In the event that no submitted essay is deemed worthy of award in the opinion of the judges in any one year, no award will be made for that year.
11. All submitted essays become the property of the Canadian Dental Association.

(Instructions were given at the recent annual meeting of the C.D.A. that a statement be prepared respecting the present position of the relationship of the dental profession to technicians, primarily for the use of Registrars of corporate members, and as a result the following is submitted.)

Statement re Dental Technicians and the Dental Profession

The relationship between the dental profession and the dental technicians has been discussed at great length during recent years. The reason, undoubtedly, has been due to the

fact that organizations representing dental technicians have been appealing to legislative bodies for legislation. In some cases organized dentistry has fought such attempts, in others representatives of the profession have cooperated with the technicians. Several acts respecting technicians have now been enacted. The relationship established between the dentist and the technician varies in these acts. In one act the technicians are brought under the control of the Dental Board for registration purposes, in the others a separate board is created for technicians.

Generally speaking, the opposition of organized dentistry to the different legislative proposals of technicians has been based upon the inclusion in the proposed bills of what is regarded as part of the practice of dentistry. In most cases conclusion has been reached that the technicians have a right to legislation provided no infringement of the practice of dentistry is included. Difficulty has been experienced in delineating legally, exactly where the dentist leaves off and the technician begins. In drafting new legislation, the existing legislation is a most important determining factor. *Consequently the content of the dental act becomes most important when an act for technicians is being contemplated.* This point will be illustrated later in this statement.

As a result of examining dental acts on the continent in connection with this matter of the auxiliary services of dentistry, two actions have developed; first, the inclusion of a definition of the practice of dentistry in the dental act, and secondly, the insertion of the prescription law in the act.

(1) *Definition of Dentistry*

Arguments may be developed both for and against the inclusion in the act of a definition. It has been said that a definition is dangerous in that it may confine the practice of dentistry, and reference is sometimes made to the fact that other professions do not attempt to define practice.

In many acts the practice of dentistry is defined in very general terms. The difficulty with a definition in general terms is that the individual who interprets the wording of the definition, for legal purposes, is very often *not* a dentist. The case, if it be one for illegal practice, is often decided upon the finding in the act of the actual operation described of which the defendant is accused.

Two provinces already have enacted legislation for technicians and it is reasonable to assume that other provinces will be faced with the matter eventually. *The present would appear to be an opportune time to review the dental act instead of attempting to do it at a future time of pressure.*

Some years ago, the American Association of Dental Examiners spent considerable time studying the framing of an inclusive definition of the practice of dentistry, and finally adopted the following:

MODEL DEFINITION OF THE PRACTICE OF DENTISTRY

"Any person shall be said to be practising dentistry within the meaning of this Act who uses or permits to be used, for profit or otherwise, for himself or for any other person, in connection with his name, the word "dentist," or "dental surgeon," or the titles "D.D.S." or "D.M.D.," or any other words, letters, titles, or descriptive matter, personal or not, who directly or indirectly owns, leases, maintains, operates a place where dental operations are performed, or directly or indirectly is manager, proprietor, or conductor of the same; or who directly or indirectly informs the public in any language orally, in writing, or in printing, or by drawings, demonstration, specimens, signs, or pictures that he can perform dental operations of any kind; or who undertakes, by any means or method, gratuitously or for a salary, fee, money or other reward paid or granted directly or indirectly to himself or to any other person, to diagnose or profess to diagnose, or to treat or profess to treat, or to prescribe for or profess to prescribe for any of the lesions, diseases, disorders, or deficiencies of the human oral cavity, teeth, gums, maxilla or mandible, and/or adjacent associated structures; or who except on the written prescription of a duly licensed dentist and by the use of impressions or casts made by a duly licensed and practising dentist, shall directly or indirectly by mail, carrier, personal agent, or by any other method, furnish, supply, construct, reproduce, or repair prosthetic dentures, bridges, appliances, or other structures to be used and worn as substitutes for natural teeth; or who shall place such substitutes in the mouth and/or adjust the same; or who administers dental anaesthetics, either general or local; or who engages in any dental practice included in the curricula of recognized dental colleges."

Many dental acts have been amended to include this definition in some form. Of course this definition may be modified in any form in order to be in harmony with the specific act in which it is to be introduced. The main

point is to cover the same ground that is contained in the definition.

(2) *The Prescription Law*

During the last ten years the prescription law has been inserted in an increasing number of dental acts. This law seeks to achieve the result that a written prescription signed by a legally qualified dentist must accompany any piece of work sent out by the dental office, and that the auxiliary worker (technician or other) must have a prescription in proper form for each piece of work he undertakes. This law is regarded by many who have studied the matter as the best protective measure of dental practice available.

(Reference—Report of Auxiliary Services Committee, para. 4, page 136—1946 C.D.A. Proceedings)

The prescription gives the dentist complete control of all auxiliary services. It is also a valuable adjunct in handling cases of illegal practice as will be presently indicated.

It is considered that the definition and the prescription taken together form the best protection for the practice of dentistry so far developed.

ILLUSTRATION

As both these amendments were inserted into the Ontario Dental Act in 1942, it is most convenient to use this Act as an illustration of both points.

Under Section 1 (b) it will be observed that the definition was adapted in harmony with the content of the Act. It will be observed that certain repetition occurs under the penalty Section (20).

Under Section (20) the prescription law is inserted. Section 20 (1b) states that the technician must possess a prescription or instructions. The words "or instructions" were added at the last minute owing to a coincidence. On the day agreement was reached upon this point the evening newspapers blazed forth with headlines that a druggist was fined several hundred dollars for filling an order for narcotics without a prescription, which frightened some technicians and they objected to the original wording. The present wording has not affected the working of the law but it would be better if the words "or written instructions" were omitted.

Two points in connection with this amendment are emphasized:

(1) Within two years after this amendment was enacted a Dental Technicians Act was introduced in Ontario. This bill was considered over a period of months, and the crux of the matter was the content of the Dental Act.

The Ontario Technicians Act does not infringe upon the definition of the practice of dentistry, and it contains the prescription law in harmony with the Dental Act. Opinion has often been expressed that if the Act had not been amended first, the Technicians Act would have been very different.

(2) Both the definition and the prescription have proven valuable in the prosecution of illegal practitioners. The interpretation of what is the practice of dentistry is made easy and as a result there have been no arguments in court respecting the point. The need for the existence of a prescription has made the production of evidence much easier, and it is recognized as being essential by the court as shown by the following last return received from a case: (*Fig. 1.*)

The education of dentists to use the prescription for their own protection is a difficult task. The Ontario Board circulated the profession upon the importance of the matter. The following is a copy of the instructions sent out.

Instructions re Prescriptions to Laboratories and Technicians

Section 20, sub-section (1.a) of the Ontario Dentistry Act, effective June 15th, 1942, reads as follows:

"It shall be the duty of every member of the College to furnish to the dental technician or other person instructed by him to undertake or perform any work or service or give any advice or assistance in clause c of sub-section 1 described, a *written prescription therefore signed by such member*, and where necessary, a design, impression or cast, at the time of giving such prescription or instructions."

In order to carry out the intent of this law, and thus gain its benefits for the dental profession, the Board has passed the following rules.

1. Members of the College will be required to furnish dental laboratories or technicians a written prescription for each piece of work to be processed by the laboratory or technician,

"MONTHLY POLICE COURT ACCOUNT"

Date, June, 1947

Royal College of Dental Surgeons of Ontario

211 HURON ST., TORONTO, ONTARIO

In Account with

SIEGFRIED ATKINSON

MAGISTRATE

For the month of June, 1947.

<i>Case No.</i>	<i>Name</i>	<i>Offense</i>	<i>Fine</i>
2852	E. M. Chinn	Construct denture without proper prescription Cheque \$38	\$100.00

Fig. 1.

2. This written prescription shall contain the following elements:

- (a) the date.
- (b) the name of the laboratory or technician to which the prescription is addressed.
- (c) a clear description of the work to be done by the laboratory or technician with appropriate diagrams, etc., where necessary.
- (d) a clear specification of the character and quality of materials to be used.
- (e) the signature of the member of the College.

The Board makes the following requests, the adoption of which will be advantageous to the profession of dentistry:

1. That all members adopt a prescription blank exact in size (5 in. x 8 in.) and similar in content to the example herein shown.
2. These blanks may be prepared in book or pad form with no printing on every other page so that carbon copies may be retained.
3. That each dentist start with prescription No. 1 and number every prescription issued consecutively, regardless to which laboratory it is to be presented.

The Board is satisfied that the co-operation of the profession in quickly adopting the above rules will save much distress for the profession in the future.

Four C.D.A. Members Honoured

At the Convocation of the American College of Dentists held in Boston, August 3, 1947, fellowships were conferred upon four Canadian dentists namely:

Dr. Scott Hamilton of Edmonton.
Dr. Harvey W. Reid of Toronto.
Dr. P. G. Anderson of Toronto.
Dr. Edmund A. Grant of Toronto.

Appointment—Dr. Prescott Mowry, Montreal

At the request of the Department of National Health, for the appointment of a representative, Dr. Prescott Mowry of Montreal has been appointed official representative of the C.D.A. to the conference of representatives of the various organizations and groups interested in the problem of arthritis and rheumatism in Canada which is to be held in Ottawa this fall.

88th Session American Dental Association

The first full scientific meeting of the A.D.A. since the war was held in Boston August 4-8, the last meeting being held at Houston in 1941. The attendance was probably the highest in history. The meeting was extremely well organized. Every phase of den-

tistry was covered in the scientific program. The meetings of the associated dental groups and the regular sessions made choices difficult for those in attendance as it was impossible to attend all that one desired.

Dinner Given by C.D.A.

On the evening of August 5 the Canadian Dental Association held a dinner in the Statler Hotel. Primarily the dinner was given in honour of the representatives of the British Dental Association, in addition representatives of some 20 countries also were in attendance together with the executive officers of the American Dental Association. Twenty-nine members of the C.D.A. were present. President Carver welcomed the representatives expressing pleasure on behalf of the Association in having the opportunity of fellowship with so many national representatives of dentistry. Dr. Harvey Reid proposed a toast to the British Dental Association and reply was made by Mr. A. P. Husband, official representative of the British Dental Association. Dr. E. Charron proposed a toast to the *Fédération Dentaire Internationale* which was replied to by Mr. A. E. Rowlett, President of the F.D.I. We were also honoured by the presence of Mr. L. W. Allen, Chairman of the Committee on Rules of the House of Representatives of the United States. The dinner was a land-mark in the history of the C.D.A. and undoubtedly did a great deal in cementing friendship among national dental bodies.

10th International Dental Congress at Boston

The XXXVth Session and Tenth International Dental Congress of the F.D.I. was held in Boston, August 4-8, 1947, in conjunction with the Annual Meeting of the American Dental Association. Over 40 countries sent official representatives to the meeting. Realizing the importance of the meeting, being the first since the world war disruption of normal activities, the Canadian Dental Association sent four official representatives in the persons of President Carver, Immediate Past-President Crowe, Dr. E. Charron, Chairman of the Committee on International Affairs and the Secretary.

The meeting was characterized by the sin-

cerity of purpose exhibited by the official representatives. The main objective of the congress was to re-organize the F.D.I. upon a more stable basis in order to place dentistry in a sound position in world affairs. The F.D.I. is the oldest continuous international professional organization in existence. At the present time other professional bodies are organizing upon a world-wide basis and it is paramount that dentistry retain and strengthen the existing organization. In his Presidential Address, Mr. Rowlett ably presented the matter, copy of which follows this report.

The C.D.A. is entitled to two official representatives to the F.D.I. The Chairman of the Committee on International Relations, Dr. E. Charron and the Secretary were appointed. Dr. E. Dubeau, a founder of the F.D.I. in Paris in 1900 and a representative of the C.D.A. at all Congresses was made an Honorary Vice-President of the F.D.I.

Presentation of Silver Plaque to C.D.A.

At the general meeting of the F.D.I. Dr. Carrea of Buenos Aires, on behalf of *La Federación Odontologica Latino Americana* presented engraved silver plaques to the British Dental Association, American Dental Association, and Canadian Dental Association. President Carver made a fitting reply stating our appreciation of this fine expression of goodwill and friendship.

Presidential Address

The following address by Dr. A. E. Rowlett, of Leicester, Eng., President of the *Fédération Dentaire Internationale*, was delivered at the opening meeting of the Tenth International Dental Congress, August 5, at Boston, Mass.:

"At the opening of each International Dental Congress it is the duty of the President of the F.D.I. to present a report upon the activities of the *Fédération* since the last International Dental Congress. There also falls to his lot the honour of opening the Congress and inducting its President.

"Some of those present may have asked themselves, or perchance their neighbours, what precisely is the F.D.I., what are its functions as far as the profession of dentistry is concerned, what does it stand for in dentistry, and in a wider sense, what sort of contribution can it reasonably expect to make towards the rebuilding of this war-shattered world?

"The answers to the first three of these questions admit of no particular difficulty be-

ing simple statements of fact. The F.D.I. is a Permanent Association or Universal Union of National Dental Societies and those affiliated thereto. Its functions are to promote International Dental Congresses at regular intervals of five years to maintain and strengthen the bonds of fellowship between National Dental Societies, to give encouragement in a general way to any activity that the organization of bodies may advance that may contribute to Dental Science, to award the "Miller Prize" and other international prizes and guerdons, to collect and keep professional documents and to organize regional documentary centres internationally.

"The answer to the fourth question, the most important of all, is not possible to give categorically. Our hopes will be manifest in the record of the activities of the F.D.I. which it is my duty to put before you this morning. Whether or no these hopes may be looked upon as reasonable expectations for your consideration is a matter of individual opinions. The evidence will be put before you. It will be for you to give the verdict.

THE HISTORY OF THE F.D.I.

"The record of the activities of the F.D.I. during the last eleven years is comparable to the final chapters of a serial story which, to be fully understood demands some knowledge of what has happened in the earlier chapters. This must be my excuse for asking you to listen to a short resumé, general structure and history of the Fédération.

"The F.D.I. was founded in 1900 in Paris at the time of the Third International Dental Congress, on the initiative of Charles Godon. Until then, International Dental Congresses had only been held on the occasion of great International Exhibitions, e.g., Paris in 1889, at St. Louis in 1893 and again at Paris in 1900. These Congresses, and especially the Third International Dental Congress, had been a great success but the dependent position of dentistry internationally did not satisfy the aspirations of the National Committees appointed to organize these Congresses. The young and comparatively new profession of dentistry was developing rapidly, its National Delegates were for the most part, young, virile and full of enthusiasm and had already established friendly contacts with colleagues at previous Congresses. Charles Godon was a natural leader, and like all born leaders was a practical idealist. He fully appreciated what powerful instruments of progress International Congresses had proved in the special and at the same time somewhat new science of Odontology. The first thought that inspired the creation of the Fédération was the necessity of having an international body, a promoter and a regulator of the benefits of International Congresses. This idea was enthusiastically received by the hundred delegates representing the principal Dental Societies of the several

countries of the world who participated in Paris and on August 14, 1900, the F.D.I. was born.

"The first step was naturally the formation of an Executive Council whose duties were to meet annually and to proceed with the arrangements for the Congress, but from the first meeting the field of action extended. It was found that among the members of the Council two ideas were uppermost in their minds, (1) the problem of education and (2) the desire to help the poor, those who suffered and lacked material resources with which to obtain relief.

"The first two Committees or Commissions of the F.D.I. were, therefore the Commission of Education and the Commission of Public Dental Hygiene, which later became that of Public Dental Service. It is a significant fact and one that in large measure explains the astonishing vitality of the F.D.I. how this "*leit motif*" of education and care for the dental health of the poor runs through the whole of the activities of the F.D.I. right up to the present day.

"At meetings of the F.D.I. during the whole of its forty-seven years of existence is imbued with the same spirit of practical idealism as expressed by the necessity for education and the desire to make available dental service for the whole community. Education and humanitarian efforts, charity in its purest form of love towards our neighbours has been the spirit animating the F.D.I. in the past and does so today. The F.D.I. is one of the few, if not the only international organization outside of the Red Cross of Geneva which has stood firm and unshaken against the shock of two World Wars, the second being a total war. No other profession can lay claim to such an organization.

"We hold that there are two impulses that must be satisfied if we are to promote the harmonious activity which leads to peace, the creative instinct and the altruistic instinct, or impulse of self-sacrifice. These are the two most powerful motive forces which guide humanity. Their potential for good or evil is almost unlimited. The knowledge and application of these psychological laws were the secret of Hitler's and Mussolini's terrifying successes; by prostituting this knowledge to the selfish ends of purely national aggrandizement they left half the world in misery and ruin. We may reasonably claim that Godon and his colleagues built on the same psychological foundations and using them for the legitimate purpose of creating international harmonious activity in the field of dental science obtained purely beneficent results. The achievements of the F.D.I. in the field of creative peace in the past gives ground for our hopes that it may still serve the same beneficent purpose in this troubled world in the future. Whether or no this may be considered a reasonable expectation is for you to judge.

Be that as it may, the indisputable fact remains that the ideals of the work of the F.D.I. has attracted great names and great figures in dentistry that it has in some small way attained the goal for which U.N.O. is so earnestly striving and which the League of Nations so tragically failed to reach. From the very start the machinery of the F.D.I. worked with a surprising amount of efficiency and smoothness. Of course there was friction at times and conflicting opinions warmly expressed, but personal contacts among individuals with the same end in view ripened into personal friendships which gradually engendered personal confidence which is, we believe, the one indispensable factor in harmonious international intercourse.

"The Commissions of Education and of Public Dental Hygiene, a name which was afterwards changed to Commission of Hygiene and Public Dental Service were organized in 1901 at Cambridge, England, and other Commissions followed. A commission of the International Dental Press was set up at the F.D.I. meeting in Madrid, and by 1905 three more were added:—A Commission of the History of Dentistry, one dealing with International Jurisprudence and International Ethics, and a Military and Naval Dental Service Commission. As the field of activity extended, the number of Commissions increased to 11. So large a number of Commissions was found to be unwieldy and, to some extent, redundant, and at the Congress of Vienna the numbers were reduced to five:

- 1) Dental Education and Terminology, with a sub-commission on Terminology.
- 2) Oral Hygiene.
- 3) Scientific Research and Preparation for the next Congress.
- 4) Legislation and Documentation.
- 5) Public Dental Service.

The titles of these Commissions give indication of the broad interests of the Fédération, the transactions of the various Congresses are a record of their activities, and many distinguished names appear in the membership lists of the commissions, in the list of the Presidents of the F.D.I., and among the Laureates of the Miller and Jessen Prize giving proof of the attraction felt by these outstanding men to the work and principles of the Fédération.

"The Fondation Documentaire Dentaire at Brussels is intended to assist scientific investigators and has been generously supported by the F.D.I. The expansion of this service, was the subject of President Logan's last address at Zurich in 1939.

"The F.D.I. awards three International Prizes, The Miller Prize, which I shall have the privilege and honour of presenting this morning, the Jessen Prize for services rendered in Oral Hygiene, the last Laureate being our late and deeply lamented colleague, Dr. Har-

vey Burkhart of Rochester, to whose inspiration we are deeply indebted for the princely donations of George Eastman. A third prize was instituted in memory of our much beloved President of Honour, Georges Villain, for orthodontics and prosthetics just previous to the war; from this Fund no awards have yet been made.

"The record of the activities of the F.D.I. is comparable to the final chapters of a serial story which cannot be understood without some knowledge of what has happened in the earlier chapters of the book, and is my excuse for the résumé that has been presented of the general structure and history of the F.D.I.

"The eleven years that have elapsed between the Congresses of Vienna and Boston may be divided into three periods, two functional periods separated by the dormant period of the war.

"We had a great leader in our President, Dr. Logan, and Georges Villain, our President of Honour was a tower of strength. Vienna had been a tremendous success and the five Commissions above worked steadily in preparation for the 1941 Congress in London for which an invitation had been received from the B.D.A. at the Vienna Congress and accepted by the F.D.I. No diminution in the efficiency of the Commissions resulted from their reduction in number and valuable collaboration was established by arranging a Joint Meeting between the Commissions for Oral Hygiene, Scientific Research and for Public Health Service.

ORAL HYGIENE COMMISSION

"The importance of this co-operative work is demonstrated by the resolution at Zurich by which Professor Toverud was charged with the preparation of a scientific report on the fundamental principles of dental and parodontal prophylaxis (pre and post natal) and the publication of the Report in the Journals of all organizations which are interested in maternity and child welfare (gynaecologists, midwives, pediatricians and nurses).

"The Public Dental Service Commission found itself hampered by lack of reliable data and information concerning social dental service in the various countries represented in the Fédération, and recommended that the Executive Council be requested to ask the affiliated countries to furnish the information required even if they have no representative on the Commission.

"The Education Committee, recognizing the evolutionary changes that had taken place in the preceding ten years in dental education, decided to postpone its final report of the present conditions until the session of 1940, with a view to the preparation of a report on the ideal program for teaching the Science of Dentistry for presentation at the London Congress in 1941.

"The Commission of Terminology reported

that investigations were proceeding upon the question of Orthodontic Terminology.

"The Commission of Dental Legislation and Documentation gave full approval of the plan for "Expansion of the Fondation Documentaire Dentaire" as laid down in his Presidential address and recommended the formation of a Committee with Dr. Logan as Chairman to obtain the aid, financial or otherwise, necessary to carry out the scheme. The Commission also approved and adopted the draft "Project of Rules" prepared by Dr. Jaccard, as a basis for the establishment of a definite text. The Commission also recommended that the Finance Committee of the F.D.I. be given powers to take all necessary steps to safeguard all Fédération Funds in an emergency.

ACTIVITIES OF THE F.D.I., 1936-39

International Dental Journal

"In Vienna it was decided to replace the Bulletin by an International Dental Journal. A committee was formed and at the Zurich Meeting, thanks largely to the untiring energy of Dr. Nord, the Journal was to all intents and purposes a *fait accompli*. (It would have provided revenues sufficient to put the F.D.I. on a sound financial footing and was the normal development of the conception of Godon in 1900). For, while the functions of a Congress are to present all the various features of dentistry by the best known dentists of the world and to give a review of all the important findings since the last Congress, the International Dental Journal issued once monthly was planned to provide reports on every phase of dentistry from Congress to Congress, together with the most important literature on these subjects. All these excellent plans were brought to naught by the outbreak of war and for six long years the F.D.I. lay dormant.

INTERIM PERIOD OF INACTIVITY CONSEQUENT UPON WORLD WAR II (1939-1945)

"For the greater part of this period communication was entirely cut off with occupied countries, and Sweden and Switzerland were practically isolated. Contact was, however, maintained throughout the whole of the war between the Americas and the countries composing the British Commonwealth. I was thus able to attend the Centenary Meeting at Baltimore in 1940, the Annual Meeting of the A.D.A. at Houston, Texas in 1941 and the Annual Business Meeting in Chicago in 1943. On each journey I visited our Canadian colleagues and in 1941 travelled from Quebec to Vancouver, visiting the chief cities along the route and being received by the State or City Dental Societies as the case might be. I was received everywhere and on each occasion with unbounded generosity and kindness.

FUNCTIONAL PERIOD (1945-1947)

"In spite of the disrupting effect of the second War upon world civilization, during the twenty years of peace the work of the F.D.I., together with its annual meetings, had become so much a part of organized dentistry, and the friendships formed during these years had become so firmly established, that this time relations were taken up again immediately, and contacts restored everywhere with the exception of Germany and Japan.

"Informal meetings were held for members of the Bureau in 1945 at Brussels, Amsterdam, London, Paris, Geneva and Chicago.

"In November, 1946, the first regular post war meeting of the Executive Council was held in Paris, and it was decided to hold an International Congress at Boston, U.S.A., in response to an invitation from the House of Delegates of the American Dental Association. Although it was fully realized that the time was too short to prepare a Congress such as those of 1931 and 1936, and that world conditions would not permit of a normal attendance, nevertheless this decision was taken with the firm conviction that it was absolutely essential for the good of dentistry and of the Dental Health Service to humanity, that international work should be resumed without delay, and an opportunity given to develop a spirit of co-operation between the younger members, upon whom the future of International Dentistry will depend.

REORGANIZATION OF THE SECRETARIAT

"There comes a time in the life of all great organizations when full-time paid officials must replace voluntary service. Hitherto, the organization of the F.D.I. has been carried on entirely by voluntary service. The post-war situation has clearly made this impossible in the future, and it has been unanimously decided by the Executive Council that it will be necessary to have a permanent Bureau where at least one official would be able to devote the whole of his time to the responsibilities of the F.D.I. This would of course entail tapping fresh sources of revenue. A scheme has been drawn up by which the National Societies which compose the Fédération shall each furnish a quota on a per capita basis of their membership, the maximum quota payable being on a 10,000 member basis. Both these schemes, i.e., the reorganization of the Secretariat and the new Finance Scheme were put before the National Committees and almost unanimously were accepted in principle by the countries of Europe. These will be the subject of discussion in the Executive Board at this Meeting and will decide the future of the F.D.I."

"A friend is one who comes in when the whole world is gone out."

NEWS FROM THE PROVINCES

ALBERTA

Alberta Dental Association

The following officers of this Association were elected at the Annual Meeting held in Calgary in June:

President.....Dr. W. E. Addenell, Edmonton.
Vice-President.Dr. G. Ross Gibson,
 Medicine Hat.

Directors,—Drs. H. Baden-Powell and H. L. Freeland of Calgary; Dr. A. C. Ahrens, Lethbridge; Dr. C. D. Husband, Red Deer.
Sec.-Treas......Dr. R. A. Rooney, Edmonton.
Registrar.....Dr. R. A. Rooney, Edmonton.

Dr. R. A. Rooney is representative of the Alberta Dental Association to the Pacific Coast Dental Conference.

Dr. H. Baden-Powell is representative on the Canadian Dental Association.

Dr. H. L. Freeland is Alberta's representative on the Dominion Dental Council, and is also First Vice-President of that Council.

Dr. C. D. Husband is representative to the Western Canada Dental Society.

Inter-City Golf Tournament

On September 7, the Calgary Dental Society met the Edmonton Dental Society at Red Deer for their Annual Inter-City Golf Tournament. About 30 men attended the function. It is noteworthy to report that since it rained all day, there was no golf, however, the event was a tremendous success. The fried chicken dinner and other indoor sports engaged in seemed to compensate for the poor weather.

SASKATCHEWAN

Saskatoon Dental Society

Officers for the year 1947-48:

President.....Dr. N. Gropper
Vice-President.....Dr. C. Hallett
Secretary-Treasurer.....Dr. R. Dickson

The Society had for its September meeting as guest Dr. L. J. D. Fasken of Regina, the Secretary of the Saskatchewan Dental Council and the President of the Western Canada Dental Society. He reported that the Council had succeeded in getting the Government to accept the Workmen's Compensation schedule of fees for Manitoba, as the schedule for the Wards of the Saskatchewan Government. Also

he reported that the Council had been given assurance from the Government that ample notice would be given re any legislation that might be introduced which would affect the dental profession in the province. The Society appointed a committee to investigate the aspects of the proposed new health unit in Saskatoon.

MANITOBA

Rural Manitoba Needs Doctors

Manitoba needs another 130 general practice doctors, and another 75 specialists, for practice outside Greater Winnipeg before medical services will be up to standard, according to the Special Select Committee of the Manitoba Legislature on Health, which report is now available for distribution. Rural Manitoba also needs 900 more hospital beds, the committee states. Hospital building and renovation proposed under the Manitoba Health Plan will supply these beds, it is pointed out. Provision for better diagnostic facilities under the Health Plan is expected to encourage more young doctors to practice in rural areas.

Winnipeg Dental Nurses' and Assistants' Association

Over fifty members of this Association renewed old acquaintances when they attended their first meeting of this term on September 9 at Moore's Restaurant.

Several new members were introduced and after the Business Meeting, Miss Mary MacArthur, an honorary member, gave an informative demonstration on the proper use of cosmetics.

DOROTHY MCCULLOCH.

ONTARIO

Visitor from New Zealand

Dr. J. L. Saunders, director of the Dental Division, Department of Public Health for New Zealand was a recent visitor in Toronto. His purpose in coming to this continent was to attend the International Congress and study preventive and public health dentistry particularly relative to dental care of children. It is his purpose to go to England for a similar study before he returns home.

While in Toronto Dr. Saunders addressed a group of dentists outlining the dental care program underway in New Zealand. He projected a fine motion picture and in all his discussion was much appreciated because it was thought provoking in that it presented another point of view.

Toronto Dental Technicians' Association

The Toronto Study Club held its opening get together on September 5 at Scarboro Golf and Country Club. After a game of golf members had dinner when Mr. T. O'Neil was presented with the Daly trophy and Mr. Ford Sawden with a pair of golf shoes as runner up. Everyone had an enjoyable day.

Eastern Ontario Dental Association Seventieth Convention

It is a great satisfaction to any executive group to plan and carry out a successful dental meeting. President Dr. L. R. Braden and his able associates can be justly proud of their achievement. The program was arranged to provide Dental health education, application and achievement, technical instruction, discussions of general interest, entertainment and throughout it all good fellowship. Some 150 members and guests were in attendance together with a number of ladies to grace the occasion.

Perhaps the highlight of the meeting was an address by Dr. Leo Sturgeon, medical health officer for the Welland-Crowland health unit in the province of Ontario. It was a challenging discussion of the problems related to dental public health. It included a report of findings in a survey of primary school children in his area of jurisdiction during 1946 as follows: 6,178 children were examined by Dr. S. L. Honey, School dental officer. He found 5,280 teeth had been prematurely lost and an additional 6,969 so badly diseased that extraction was necessary. 25% of pupils examined needed orthodontic treatment and the appearance of 6% of those examined was marred by orthodontic defects. There was an average of 5 defects per child in the area and only one in 5 children had ever received restorative dental service.

The speaker stated that dental public health was a prime necessity in any public health pro-

gram and that it should be carried out by a dentist with adequate background and training. The approach to achieving better dental health was through education of the parent as well as the child, emphasizing the importance and value of having good teeth. The speaker also catalogued a list of objectives for dental public health promotion—

1. Help every Canadian appreciate the importance of a healthy mouth.
2. Help every Canadian appreciate the relationship of dental health to general health and appearance.
3. Encourage the observance of dental health practices including personal care, professional care and proper diet.
4. Enlist the aid of all groups and agencies interested in promotion of health.
5. Correlate dental health activities in an all generalized health program.
6. Stimulate the development of resources for making dental care available to all children and youth.
7. Stimulate all dentists to perform adequate service for children.

Other speakers on the program included Dr. L. R. Twible, Faculty of Dentistry, Toronto; Dr. P. J. Maloney, Pediatrician, Ottawa; Dr. P. J. Aufderheide, Cleveland; Dr. H. Nevin, New York, and Mr. Henry Cavill, Montreal.

A luncheon meeting was arranged for the opening day which featured Mr. Lance Rumble as speaker. Mr. Rumble amazed his hearers by his oratory and wit as he described the problems encountered in building the Alaska Highway. He left the impression that in spite of the great difficulties presenting there were always humorous situations as a sort of spice of life.

In contrast to the entertaining address of Mr. Rumble, Dr. A. E. Cliffe of Montreal presented a very interesting lecture at the closing banquet entitled "It's up to you." Dr. Cliffe is a biochemist with a hobby of studying psychology. He spoke of the vitamins of "food" and the vitamins of "thinking." He summarized his remarks by concluding—"Your health, your happiness and your success depend upon what you eat and what you think." An added feature of this banquet was a musical program sponsored by the exhibitors association and directed by Mr. Perc. Hannaford.

As was intimated before, throughout the

whole meeting an atmosphere of good fellowship was always in evidence. Throughout the years Dr. Sidney Bradley was in no small measure a quiet promoter of this congenial friendliness. This year the association tried to turn the tables on Dr. Bradley when with suitable eulogy by president Braden, Dr. Ernest Sparks of Kingston was called to make the presentation of a beautiful travelling case. This was a very popular gesture, as Dr. Bradley, because of his service to his profession, has won the esteemed title of "Dean of Dentistry" in Eastern Ontario.

Another interesting sidelight of the convention was a luncheon party in honour of the officers of the Eastern Ontario Dental association given by the Ontario Dental Association. President, Dr. R. P. Lowery was host and his congeniality pervaded the function making it a very enjoyable occasion.

The Convention finally closed by introducing the new officers for 1947-48. These are:

President Dr. G. W. Barrett, Ottawa
Vice President..... Dr. A. Couture, Ottawa
Sec. Treas...... Dr. F. Calder, Brockville
Advisory Board—Drs. L. R. Braden, Paul Coté, Graham Hudson, E. S. McCartney, all of Ottawa; A. A. Antoni, Carleton Place; J. Mandeville, Pembroke; T. Regnier, Rockland; A. W. O'Hara and H. A. Stewart of Kingston.

Auditors—Dr. W. C. McCartney and S. W. Bradley, both of Ottawa.

Academy of Dentistry

The *first stated meeting* of the Association will be held on November 6 at 8.15 p.m. in the Royal Ontario Museum, Bloor Street and Avenue Road.

The speaker is Dr. Victor Stessel of Columbus, Ohio, and his subject "Partial Denture Technique."

The *Winter Clinic* will be held at the Royal York Hotel on November 27.

Luncheon speaker, Professor J. D. Robbins, from the Department of English, Victoria College, Toronto.

Limited attendance clinics will be given by Dr. Stanley C. Brown of Ithaca, Michigan, and Dr. Homer Faust of the Graduate Dental School, Ann Arbor, Michigan.

Complete program will be allowed to all Ontario dentists at a later date.

Dentistry—Then and Now*

Now many years have come and gone,

Since first we hung our shingle out

To practise dentistry, and try

To serve the public well, no doubt!

Our modesty (and brains) were great (?)

We'd soon set all the world afire

With all our knowledge and our skill

Which every patient would admire!

Well—there we sat from day to day

Awaiting those who did not come,

We wondered how to coax them in,

And thought the public very dumb!

And those who came then seldom paid

But said that "they would call again

And send their friends for dental work"—

But no one came 'til God knows when!

We took out teeth with "laughing gas",

Or used a "local" oft instead,

But why they laughed we never knew—

Was it at something we had said?

With porcelain and vulcanite

We filled then—many a toothless mouth—

So they could grind their food quite well

By masticating north and south.

But, times have changed. In recent years

Acrylics play a useful part

In restorations now so good

We fool the public with our art.

Synthetic fillings now in vogue

Restore the inroads of decay;

They simulate the natural teeth

And thus improve their looks today.

Periodontists, with their skill,

Are saving many useful teeth,

While orthodontists with their bands

Remould young mouths beyond belief!

And x-rays are the greatest help

In diagnosing dental ills

Which lie in areas all unseen,

And thus a service well fulfils.

The public sure are waking up—

"Tooth conscious" to a large degree—

Demanding all that we can give,

And gladly pay a decent fee.

So Dentistry is on the move—

It has a rendezvous with Health;

"Prevention" is its watchword now,

For the good of the Commonwealth.

—W. A. BLACK

*Written on the occasion of completing 40 years in dental practice.

EMPIRE NEWS

GREAT BRITAIN

The Dental Secretary

Dr. Senior, Secretary of the British Dental Association for the past sixteen years has been appointed Senior Dental Officer to the Ministry of Health.

The Longest Span of Life Based on the Records of Centenarians in England and Wales

By V. KORENCHEVSKY, M.D.

From the Gerontological Research Unit, Oxford.
Conclusions of paper in *British Med. Jour.*, July 5/47.

In the data recorded in the Registrar-General's Office the certificates of birth of centenarians have not been checked, and therefore their age can be accepted only with some reservation. Since, however, these data were investigated during the latest period of 16 years, and as the figures investigated were constant in character, their value and reliability are probably still considerable.

According to these data, in England and Wales per 20 millions of male or female population there were each year on the average 17.7 male and 71.4 female centenarians in the period 1930-7, and 18.3 and 83.4 respectively in the period of 1938-45. Thus, unexpectedly, their incidence was regular and not very exceptional, and more women had a long span of life than men.

There was a statistically significant increase

of female centenarians during the last eight years as compared with a previous period of eight years, while a small increase in male centenarians in the last period was not significant.

During these periods the longest human lives recorded were 109 and 112 years, and this fact is in approximate accord with the conclusions reached by previous critical investigators for periods earlier than 1930.

Thus, theoretically and potentially, a span of life of 109-112 appears to be possible for a human being. As, however, the exceptional cases of longevity of human beings have occurred during the present time, when the process of ageing is abnormal, there is some possibility that the span of human life might be further extended when the process of ageing becomes a normal one.

There are some indications that the genetic factor is one of the casual factors of longevity.

Taking into consideration the primary aim of gerontology to make old age stronger and healthier, and not only longer, the prophecy of Metchnikoff and Fisher may be right—that in this way the useful period of human life might be extended and the community benefit by a greater utilization of the accumulated experience and wisdom of older people.

It is most desirable that scientific and medical investigation of cases of centenarians should be carried out by research workers.

GENERAL NEWS

Eskimo Dentition

Dr. P. O. Pedersen, the distinguished Copenhagen odontologist, gave an interesting account to the Odontological Section of the Royal Society of Medicine on April 14 on three expeditions which have gone to Greenland in recent years to investigate the teeth of the Eskimo. The consumption of sugar in West Greenland has reached or surpassed the high levels of countries like Denmark and the United States. An examination of over 500 Eskimo skulls found in an old burial place revealed only two carious teeth out of 5,745 teeth examined, and it was not entirely beyond

doubt that the skulls in which these carious teeth were found belonged to the period before the white invasion.

It can be said with a fair degree of confidence that there was no caries in Greenland in pre-Danish times. Today caries is a common disease among the Eskimo population. Even in the trading posts of eastern Greenland, where white contact dates back only for half a century, caries has risen to a considerable level, and in western Greenland, which has known the white man and his ways for a far longer period, the incidence is alarming. More than 50% of the deciduous teeth of the

Eskimo children at the trading stations in western Greenland are carious. The incidence is as high as in the old countries of northern and western Europe, perhaps even higher.

Supernumerary roots are frequent. Disturbances of enamel and dentine formation are rare. Some women show a form of dental fluorosis, caused by mixing a certain amount of creolite powder into their snuff, and the fluorosis is transmitted to their children. On the other hand gingivitis, which is widespread, is found with greater frequency and to a more severe degree among men than women—a circumstance put down to the fact that men are more addicted than women to chewing a tobacco quid.

One characteristic of Eskimo nurture remarked upon by Dr. Pedersen (though he did not elaborate its possible bearing upon dentition) is that children frequently remain at the breast until they are six or seven years old. Indeed, in the primitive community if the child could not be suckled by the mother or some other woman it would perish. Dr. Pedersen said that he had actually seen a boy of six who was still at his mother's breast, but had in the meantime acquired the art of smoking cigarettes.—*Br. Med. Jour.*

Pure Water is Best Mouth Wash

Pure water is the best mouth wash according to the Council on Dental Therapeutics of the American Dental Association.

"Pure water will fulfill the most important requirements as a mouth wash," the Council reported.

Next best to plain water as a mouth wash is a saline solution prepared by dissolving two teaspoonfuls of table salt in one quart of distilled water. Medicated mouth washes should be used only when prescribed by the dentist or physician, the Council recommended.

"The fact that many persons rely on medicated mouth washes when they should visit a dentist or physician must result in numerous instances in serious delay in obtaining necessary treatment," the report said.

"For example, bad breath and sore throat are often symptoms of disease. The person who depends on mouth rinses to eliminate such symptoms or to prevent their development is fooling himself, perhaps to his own detriment."—*A.D.A. News Release.*

A. D. A. Convention

The 88th annual meeting of the American Dental Association at Boston, Mass., from Aug. 4 to 8, was one of the largest and most successful dental conventions ever held.

Featuring the first post-war scientific sessions of the A.D.A. and the Tenth International Dental Congress, which last met in Vienna in 1936, the meeting was attended by more than 10,000 persons, including delegates from 41 nations. In addition, there were several thousand wives and children who accompanied dentists to New England for vacation trips before and after the convention sessions.

Dr. H. B. Washburn of St. Paul, Minn., was formally installed as the new president of the Association, succeeding Dr. Sterling V. Mead, of Washington, D.C.

Faced with the rising costs of operation and demands for expanded activities the House of Delegates approved a budget submitted by the Board of Trustees, authorizing expenditures of \$1,076,578.46 for the fiscal year ending June 30, 1948, but appended instructions to the Board to curtail all expenditures wherever possible.

According to budget estimates of the Board of Trustees, total anticipated income for the fiscal year is \$764,000, leaving an estimated deficit of \$312,578.46.

On motion of the delegation of the Dental Society of the State of New York, the House approved a plan to raise dues \$6 to a total of \$12 annually. Under the A.D.A. constitution this proposal must lay over for one year and if again authorized by the House of Delegates at the 1948 meeting, the increase will take effect January 1, 1949.

In other actions, the House of Delegates:

Directed the Committee of Legislation to seek federal legislation to establish the Dental Corps of each branch of service on equal parity with the Medical Corps and other staff corps.

Approved a recommendation of the Council on Dental Therapeutics that the Council discontinue granting the Seal of Acceptance to non-therapeutic dentifrices.

Accepted requirements prepared by the Council on Dental Education for the accrediting of schools for dental hygienists.

Voted to extend the Accreditation Plan for

dental laboratories to all states as soon as possible.

Expressed general approval of a plan to certify specialists approved by examining boards.

Authorized the appointment of a committee to co-operate with the American Dental Hygienists' Association and urged that state societies follow the national pattern in establishing liaison committees with dental assistants' organizations.

Urged state societies to establish joint medico-dental committees with state medical societies.

Approved a recommendation of President Mead that the teaching of dental economics in dental schools be improved, and that more adequate training be provided in the use of general anaesthetics.

Recommended that all state and component societies appoint special committees on dentistry for children.

Directed that active measures be taken to provide for the training of technicians under the control of accredited dental schools and recommended that such training in proprietary schools be discouraged.

Approved a recommendation that the American Dental Association take leadership in coordinating various international dental groups for the purpose of developing universal plans for better dental health throughout the world.

Went on record opposing free dental care for any person able to pay for such care except that specifically authorized for research.

Authorized the Committee on Dental Economics to make a study of dental activities engaged in by agencies of the federal government, and to complete a statistical report of the distribution of dentists in the United States.

Approved a plan of selecting meeting dates three years in advance and authorized meetings for the next three years as follows:

Chicago, 1948; San Francisco, 1949; and Atlantic City, 1950; with the reservation that suitable dates and accommodations be available.

Fédération Dentaire Internationale; The Miller Prize, founded after the death of Dr. W. D. Miller in Berlin 40 years ago, was awarded to Dr. Juan Carrea, of Buenos Aires, Argentine, and posthumously to the late Dr.

William H. G. Logan, of Chicago, former president of the *Fédération Dentaire Internationale*. Mrs. Donald L. LaChance, of Kennilworth, Illinois, daughter of Dr. Logan, accepted the prize on behalf of her father.

The Georges Villain prize, in honour of the late president of the F.D.I. who was killed in an automobile accident in France in 1939, was awarded by Dr. Henri Villain, president of the French Dental Association and brother of the late F.D.I. president, to Dr. Allan G. Brodie, of Chicago, dean of the dental school of the University of Illinois.

Dr. Charles F. L. Nord, of Holland, was elected president of the *Fédération Dentaire Internationale* to succeed Dr. A. E. Rowlett, of England. Dr. Rowlett was named honorary president of the international group.

Drs. E. Dubeau of Canada, W. Guy, of Great Britain, and A. L. J. C. VanHasselt, of Holland, were elected Honorary Vice-Presidents.

Three members of the American Dental Association were elected Vice-Presidents. They are: Drs. Daniel F. Lynch, of Washington, D.C.; Oren A. Oliver, of Nashville, Tenn.; and H. Trendley Dean, of Washington, D.C.

Other officers elected by the F.D.I. council included: Drs. Henri Villain, of France; J. U. Carrea, of Argentina; E. Haderup, of Denmark; A. Joachim, of Belgium; all Vice-Presidents; Dr. F. Watry, of Belgium, Secretary-General; Drs. G. H. Leatherman, of Great Britain, and J. E. DeWever, of Belgium, Assistant Secretaries; Dr. P. Fontanel, of France, Treasurer; and Drs. M. Deliberos of France and A. Held, of Switzerland, Assistant-Treasurers.

•

Weston A. Price Grants Fund for Nutrition Research

The American Academy of Applied Nutrition has received a quantity of research and teaching equipment, including a donation of \$15,000 from Weston A. Price, Redlands, Calif., which will be used to promote and build up a national membership.

Dr. Price transferred his library of photographs, records and original observations on the effects of hereditary and adopted diets on the health of native peoples in his gift to the Academy. He included, also, full rights to his book, *Nutrition and Physical Degeneration*.

Dr. Mason Elected President of Dental Schools Association

Dr. A. D. A. Mason, of Toronto, was named president of the American Association of Dental Schools at the twenty-fourth annual meeting of the society held in Chicago in June.

Dental Associations in Mexico

Mexico is a large country, eight times as large as Great Britain and Northern Ireland, comprising twenty-seven States, three Territories and the Federal District of Mexico. The National Mexican Dental Federation therefore may be compared in its formation to the *Fédération Dentaire Internationale*; other Scientific Societies are the Mexican Society of Orthodontia and the Mexican Dental Association. —Dr. Jose J. Rojo, Mexico.

Surveys on Health Conditions

A team of five Chicago physicians left July 19, to conduct clinics and survey health conditions in Alaska for Secretary of Interior Krug. The specialists, taking with them facilities for a portable hospital, spent about a month in the territory. They planned to diagnose, prescribe for and treat as many sick Eskimos, Indians and Aleuts as possible.

Cancer of the Head and Neck

There are many problems in the treatment of cancer of the head and neck which require the co-operation of the surgeon and the dentist, Drs. Ralph S. Lloyd, dentist, and Ralph R. Braund, physician, of Baltimore, reported in *The JOURNAL* of the American Dental Association.

Drs. Lloyd and Braund described a number of cases in which the dentist has provided artificial eyes, ears, noses, skin sections and bone replacements to patients whose head and face were disfigured by surgical removal of cancerous lesions.

Not only do such appliances eliminate unsightly defects, but they also enable the patient to maintain a nutritional and emotional balance, the authors point out.

They said that nearly one third of all cancers are of the skin, particularly surfaces exposed to sunlight such as the face and neck.

It was reported that considerable success had been achieved in providing patients with artificial ears and one case was mentioned in

which the patient lost both ears as a result of a cancer causing partial deafness. In this case, a hearing aid was installed in the artificial ears constructed as replacements.

The development of prosthetic eyes, ears, noses and other parts of the head by the dental profession is a direct outgrowth of research by dentists in the use of acrylic resins for full dentures.

Mississippi Plan for Rural Areas

A unique plan has been developed in the state of Mississippi for attracting physicians to rural areas. A scholarship fund has been provided by the State Medical Education Board through loans to be made to G. I.'s who wish to attend medical school. The maximum loan is \$1,250 per year, and for each year spent in rural areas during early practice, a credit of one fifth of the individual loan is allowed. This means that a physician on finishing his internship could pay his loan by practising five years in rural areas in Mississippi.

Academy of Periodontology

The American Academy of Periodontology, which held its thirty-first annual meeting in Boston, installed Raymond E. Johnson, St. Paul, as president. Other officers are Edward L. Ball, Cincinnati, president-elect; Clarke E. Chamberlain, Peoria, Ill., secretary, and C. Wesley Marriott, Cleveland, treasurer.

Rhode Island Cash Sickness Fund

Rhode Island's cash sickness compensation fund, the first state-operated health insurance program in the country, is in the black as it enters its fifth year of actual operation. The General Assembly has just declared its faith in the value of the program by approving transfer to the fund of somewhat more than \$28,000,000 which had been built up in the state's Unemployment Compensation Fund from employee contributions begun in 1937.

When Rhode Island Legislators enacted the cash sickness law in April, 1942, they were pioneering in a field scarcely entered except by social planning experts. Actually, the cash sickness compensation fund does not provide for preventive medical care, and the law's provisions apply only to workers. Housewives and children, for example, do not receive cash sickness benefits.

IN MEMORIAM

A. Russell Ezard, of Winnipeg, aged 58; died September 6 at Deer Lodge Hospital.

He was graduated in Pharmacy in 1911 and practised this profession for two years following which he attended North Western University, from which he was graduated in dentistry in 1917.

He went overseas in the First World War returning in 1919. He practised dentistry in Winnipeg from 1919 to 1941. During the Second World War he was attached to the Dental Corps headquarters in Winnipeg. After the war he was with the dental clinic of the D.V.A. He was promoted to the rank of Major during the recent war and one of his regrets was that he had passed the age for service overseas. However, he had some contact with our German foes as he served as a dental officer for some months in a prisoner of war camp in the Lake Superior district.

He took a keen interest in the advancement of dental science and seldom missed a meeting of the Association. He was a member of the Masonic Order including the Scottish Rite.

Dr. Ezard is survived by his widow and one sister.

Fred Lionel Thompson, of Westboro, Ontario, aged 55, died suddenly September 5. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1921.

During the First World War he served overseas with the Canadian Army. He was

an ardent fisherman and during his school days was an outstanding athlete.

He was a member of Westboro United Church, a past master of the Acacia Lodge, No. 561, A.F. & A.M., a director of the Westboro Masonic Temple Limited and belonged to the Westboro Lodge, IOOF, No. 126. He was also a member of Public School Board No. 2, Nepean.

Dr. Thompson is survived by his widow and one sister. One son predeceased him in 1937.

William Henry Graham, of Ottawa, Ontario, aged 73, died suddenly from a heart seizure while playing golf at Rivermead Gold Club.

He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1897. After graduation he began practice in Ottawa where he continued until his death.

Dr. Graham was a member of the United Church of Canada and a member of Doric Lodge A.F. & A.M.

Wilfrid Radford Junkin, of Toronto, Ontario, aged 47, died September 17 from a heart attack. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923 and practised for a time in Toronto and later in Trenton and Sudbury before returning to Toronto.

He attended Trinity United Church.

Dr. Junkin was unmarried and is survived by three brothers.

The fundamental mechanisms of the transmission of heredity from parents to offspring are surprisingly uniform in most diverse organisms. Their uniformity is perhaps the most remarkable fact disclosed by genetics. The laws discovered by Mendel apply to human genes just as to those of the maize plant, and the processes of cellular division and germ cell maturation in man are not very different from those in a grasshopper. The similarity of the mechanisms of heredity on the individual level is reflected on the population level in a similarity of the basic causative factors of organic evolution throughout the living world. Mutation, selection, and genetic drift are important in the evolution of man as well as in amoebae and in bacteria.—Th. Dobzhansky and M. F. Ashley Montagu, Department of Zoology, Columbia University, New York.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

OCTOBRE 1947

NO 10

Nouveaux Règlements du Collège des Chirurgiens Dentistes de la Province de Québec

Leur portée — Leur application

Depuis quelque temps déjà, le Bureau des Gouverneurs du Collège des Chirurgiens Dentistes de la Province de Québec réalisait que certains de ses règlements, et particulièrement ceux qui concernent les actes dérogatoires à l'honneur professionnel, étaient ou incompris ou ignorés par un certain nombre de ses membres. Il nomma donc un comité chargé de reviser et d'amender ces règlements afin de les rendre plus compréhensibles, plus explicites et, par conséquent, plus faciles d'application.

D'autre part, il faut avouer qu'un petit nombre de confrères avaient, soit inconsciemment, soit intentionnellement, enfreint la lettre ou l'esprit de certains règlements concernant l'annonce.

Ces règlements tels qu'amendés, et adoptés à l'unanimité, vous ont été expédiés sous courriel recommandé, le 5 mai dernier, accompagnés d'une lettre explicative du Président du Collège.

Depuis, il a été donné à certains de vos représentants régionaux du Bureau des Gouverneurs d'expliquer et de commenter en des réunions publiques, la portée de ces règlements. Vu le grand nombre de demandes d'explications faites au registraire ou à vos représentants, nous avons cru qu'il serait utile de publier de nouveau ces règlements en les accompagnant de commentaires qui, je l'espère, rendront plus intelligible l'aridité des textes.

RÈGLEMENT NO 31:

"Tout membre du Collège des Chirurgiens-Dentistes de la Province de Québec est tenu de verser entre les mains du registraire la somme de vingt-cinq dollars comme contribution annuelle, prévue par l'article 91 de la Loi des Dentistes de Québec. Ce règle-

ment entrera en vigueur le 1er juillet 1947."

RÈGLEMENT NO 31 a:

"A compter du 1er janvier 1948, le Collège versera annuellement à l'Association Dentaire Canadienne une contribution de huit dollars, par membre en règle avec le Collège, à condition toutefois que les autres provinces augmentent leur contribution à ce montant au moins."

(31) La contribution annuelle est portée de \$14. à \$25., afin de parer aux frais administratifs sans cesse grandissants:

Législation tendant à augmenter les pouvoirs d'autonomie de votre profession;

Intensification de la campagne permanente d'hygiène par un généreux octroi à la Ligue d'Hygiène Dentaire de la Province de Québec (\$3,000. en 1947);

Poursuite vigoureuse de la répression de la pratique illégale par des moyens qu'il importe pour le moment de ne pas dévoiler; Augmentation de la contribution annuelle par membre, (de \$4. à \$8.) à l'Association Dentaire Canadienne; plusieurs provinces se sont déjà engagées à doubler leur contribution actuelle de \$4. et la condition incluse dans l'article 31a n'a pour but que de rendre l'unanimité obligatoire. Le rôle de l'A.D.C. est maintenant reconnu indispensable et ses nombreuses initiatives sont familières à tous. Qu'il me soit cependant permis de souligner que bon nombre des activités de cette Association ont un caractère nettement préventif, en ce que l'A.D.C. combat avec succès certaines dispositions légales ou fiscales qui seraient préjudiciables aux intérêts de la profession tout entière. Ces succès se traduisent par

l'abolition de tel tarif, la révocation de tel contingentement de métal pour usage dentaire, ou autre mesure du même genre, et ces démarches, de par leur nature même, ne sont accompagnées d'aucune publicité,

Ajoutons enfin que d'autres corps professionnels ont jugé bon de majorer la contribution de la façon suivante:

Association des Architectes de la Province de Québec (400 membres)	\$25. à \$40.
Association des Notaires de la Province de Québec (850 membres)	\$25.00
Collège des Optométristes et Opticiens de la Province de Québec (300 membres)	\$25.00
Barreau de Montréal (1700 membres)	\$36.00
Association des Techniciens en prothèse dentaire de la Province de Québec (339 membres)	\$25.00

La plupart des associations ouvrières ont une cotisation supérieure à la nôtre.

REGLEMENT NO 36:

"Outre les actes prévus par l'article 122 de la Loi des Dentistes de Québec, sont aussi déclarés actes dérogatoires à l'honneur professionnel:

- a) "le fait pour un dentiste d'annoncer ou de se faire annoncer par l'intermédiaire de la radio;"—sans commentaires—
- b) "le fait pour un dentiste d'annoncer des opérations sans douleur;"—sans commentaires—
- c) "le fait pour un dentiste d'annoncer des consultations ou examens gratuits;"—sans commentaires—
- d) "le fait pour un dentiste d'annoncer la garantie de ses opérations ou travaux dentaires;"—sans commentaires—
- e) "le fait pour un dentiste d'annoncer des procédés, de l'instrumentation, ou des appareils;"

Ce texte défend dorénavant d'annoncer sur la plaque professionnelle, dans la fenêtre ou dans les journaux ou autres publications:

l'appareil à rayons X

le procédé d'ionisation

l'appareil pour l'administration de rayons ultra-violets, infra-rouges, haute fréquence, etc.

l'appareil pour administrer l'anesthésie ou analgésie, ou tout autre appareil ou procédé.

On sait que, jusqu'à présent, l'annonce de l'appareil à rayons X était tolérée, mais devant la tendance de certains confrères à commercialiser ce genre de réclame le Bureau des Gouverneurs, ne

pouvant permettre l'une et défendre l'autre, s'est vu dans l'obligation de les prohiber toutes, y compris l'appareil à rayons X.

- f) "le fait pour un dentiste de publier dans les journaux, revues, périodiques ou autres imprimés, des annonces d'un caractère commercial;"

Cet article est explicite, mais sous peine d'être taxé de répétition, j'ajoute que toute interversion de texte, (emploi de caractère gras ou autre truc d'impression ou de publicité), qui pourrait donner à une annonce d'autre part légale, une apparence commerciale, est défendue par ce paragraphe "f" de l'article 36.

- g) "le fait pour un dentiste de publier dans les journaux, revues, périodiques ou autres imprimés, des annonces autres que sa carte professionnelle, cette carte ne devant contenir autre chose que le nom, les titres professionnels, l'adresse, la spécialité, les heures de bureau, le numéro de téléphone, et ne pas dépasser en superficie deux pouces carrés (un pouce par deux pouces), que ces annonces soient faites individuellement ou collectivement par plusieurs chirurgiens dentistes;"

J'attire particulièrement l'attention des confrères annonçant ou étant sollicités d'annoncer dans les journaux ruraux, sur les restrictions imposées par ce paragraphe. Il arrive souvent que, dans l'espoir d'obtenir des émoluments plus élevés, un publiciste mettra à la disposition de l'annonceur un espace deux fois plus grand pour un prix légèrement plus élevé. Au texte de ce paragraphe, une annonce de 1 pouce par 2 pouces, occupant un espace de 4 par 6 pouces ou 8 par 10 pouces, voire même une page complète, est considérée illégale et rend le dentiste passible des sanctions de la loi.

- h) "le fait pour un dentiste de distribuer ou faire distribuer des circulaires, prospectus ou tout autre imprimé commercial;"

Ceci s'applique tout particulièrement aux calendriers dits paroissiaux, qu'ils soient publiés sous les auspices d'une société patriotique ou toute autre organisation, si méritoire soit-elle. Ces calendriers sont considérés comme circulaires, étant distribués de porte en porte.

- i) "le fait pour un dentiste de s'annoncer par enseigne lumineuse;"

Ceci s'applique à toute enseigne intérieure ou extérieure, et à tout genre d'illumination: directe, indirecte ou fluorescente.

- j) "le fait pour un dentiste de s'annoncer à l'extérieur par plus d'une enseigne de deux pieds carrés au maximum, et

par plus de deux enseignes à l'intérieur, de dimension dépassant quatre pieds carrés chacune;"

Ce paragraphe a été l'objet de multiples demandes d'information, et je tâcherai de rendre le sens de ce texte aussi clair que possible:

A—L'enseigne à l'extérieur dont il est fait mention, signifie pour le plus grand nombre d'entre nous, la plaque de cuivre ou de verre peint à la porte de notre bureau. Cette enseigne peut être, bien entendu, de bois, de métal ou de verre, mais dans tous les cas elle doit être **unique** et ne pas dépasser en dimension 1 pied par deux (12 pouces par 24 pouces) ou toute autre fraction de ces chiffres, dont la multiplication donnera une superficie de 2 pieds carrés (288 pouces carrés).

L'enseigne ainsi désignée est la **seule permise à l'extérieur**, et exclut par conséquent toute autre enseigne extérieure quelle qu'en soit la nature, la dimension ou la disposition.

B—Les mots: "par plus de deux enseignes à l'intérieur" signifient que les enseignes (de vitrolite) que les dentistes suspendent généralement à l'intérieur de leurs fenêtres sont dorénavant limitées à **deux**, que le local du dentiste soit éclairé de 4, 6 ou 10 fenêtres. Celui qui, par le passé, décorait toutes ses fenêtres de telles enseignes devra enlever les enseignes additionnelles.

k) **"le fait pour un dentiste de s'annoncer par enseigne suspendue et faisant angle avec la bâtisse où est situé le bureau du dentiste;"**

Ce paragraphe n'est que le complément du précédent et n'aurait pas sa raison d'être si ce n'était pour répéter sous une autre forme que tout genre d'annonce ainsi désigné est également défendu. Le présent et le précédent paragraphe s'appliquent également à toute enseigne de bois ou de métal, posée à plat sur la bâtisse occupée par le bureau du dentiste.

l) **"le fait pour un dentiste d'annoncer une spécialité, à moins d'être de fait spécialisé et de limiter sa pratique à la spécialité annoncée;"**

En vertu de ce paragraphe, les annonces "Spécialité: dentier," "Spécialité: extraction" et autres du même genre, sont maintenant défendues. Au sens véritable du terme "spécialiste," il n'y a actuellement que les orthodontistes qui ont droit à ce titre.

m) **"le fait pour un dentiste de s'annoncer au public, par enseigne ou autrement, d'une façon jugée par le Conseil de Discipline de caractère disgracieux;"**

Ce paragraphe a pour but de rendre illégale toute velléité d'un confrère d'éluder la loi par des trucs publicitaires, non spécifiquement défendus par les présents règlements mais qui seraient contraires à l'esprit de la loi et à la dignité professionnelle.

n) **"le fait pour un dentiste de se rendre coupable de tout abus de confiance au détriment de ses patients, en ne remplissant pas son contrat ou engagement;"**

Le régistiaire et le Bureau des Gouverneurs ont, souventes fois par le passé, reçu des plaintes de patients, honteusement exploités par des confrères indignes de ce nom, qui exigeaient une avance substantielle, ou la totalité de leurs honoraires, pour ensuite se dérober à l'obligation de remplir leur contrat. Le Conseil de Discipline a toujours eu, en vertu des statuts généraux, les pouvoirs de sévir en pareils cas, mais le Bureau des Gouverneurs a voulu, en édictant ce règlement, exprimer sa réprobation d'une telle conduite et enjoindre le Conseil de Discipline d'être sans pitié pour ceux trouvés coupables de tels abus.

o) **"le fait pour un dentiste de surprendre la bonne foi d'un confrère, ou de se rendre coupable d'abus de confiance ou de procédé déloyal dans ses rapports professionnels ou sociaux entre confrères;"**

Ce paragraphe, semblable aux dispositions de la Loi du Barreau, vise les accrocs faits à la réputation professionnelle d'un confrère soit au cours de sa pratique, soit par insinuation, au cours de rapports sociaux.

p) **"le fait pour un dentiste de faire ou de conseiller de faire des opérations ou traitements contraires à la santé du patient ou aux données de la science dentaire;"**

La conduite anti-professionnelle et anti-sociale de trop nombreux confrères qui procèdent systématiquement à l'extraction complète des dents de leurs patients, peut être considérée comme criminelle, et passible des plus sévères sanctions. Les prétendus spécialistes en extraction et en dentiers doivent se reconnaître en ces lignes, et ce sont eux que vise ce règlement. Il sera appliqué dans toute sa rigueur. Rappelons ici qu'un dentiste trouvé coupable de "malpractice" est passible de suspension pour un an ou plus, ou encore de destitution.

q) **"le fait pour un dentiste d'exercer la chirurgie dentaire, en quelque endroit que ce soit, sans avoir le minimum d'équipement requis pour rendre un**

service adéquat et sans observer les préceptes d'hygiène et d'asepsie prescrits par les règles de l'art;"

De trop nombreux confrères qu'on peut qualifier de "dentistes ambulants" parcourent la province, exerçant, qui dans une chambre d'hôtel, qui dans une cuisine, confectionnant des dentiers aux victimes qui leur sont amenées par quelque rabatteur, ou grâce à une réclame tapageuse et indigne. Ces gens se soucient peu ou pas de traiter les gencives et les dents et pratiquent l'extraction à outrance. Il est de notre devoir d'exiger de ce genre de confrères au moins le minimum d'hygiène que le Bureau de Santé exige des barbiers et des restaurateurs.

r) "Le fait pour un dentiste d'exposer à l'extérieur, sous vitrine ou autrement, des pièces représentant des spécimens de travaux dentaires de toutes sortes;"
—sans commentaires—

s) "Le fait pour un dentiste de compromettre l'honneur ou la dignité du Collège des Chirurgiens Dentistes de la Province de Québec par un ou des actes de notoriété publique.

Cet article est en réalité le complément du paragraphe No 5 de l'article 122 de la Loi Dentaire, qui se lit comme suit: "L'abus habituel des boissons alcooliques ou des préparations narcotiques."

Quiconque, sous l'influence de boissons alcooliques ou de préparations narcotiques, commet des actes de notoriété publique, aptes à compromettre l'honneur et la dignité de sa profession, est passible des sanctions édictées par la loi, en vertu des présents règlements.

Considérations Générales

Le sens de ces règlements n'est que de concrétiser l'attitude de l'ensemble de la profession qui a toujours été de bannir tout aspect commercial des considérations professionnelles. Depuis son incorporation, le Collège des Chirurgiens Dentistes de la Province de Québec a toujours assimilé le rôle de notre profession à celui d'une profession consacrée au maintien de la santé publique; et à côté des avantages indéniables qu'elle offre à ses membres, elle se doit d'accorder en échange ses plus sérieuses considérations au bien-être de ses patients. Nous nous sommes toujours apparentés à notre soeur aînée, la médecine, dont nous partageons les privilèges et les responsabilités. Imitons donc dans notre conduite les fils les plus illustres de cette noble profession, par notre dévouement envers nos patients, notre soif de science, notre empressément à appliquer à nos méthodes les découvertes scientifiques faites chaque jour; par notre horreur enfin des réclames tapageuses dignes des saltimbanques du XVIII^e siècle, alors que les seigneurs et les arracheurs de dents s'annonçaient aux carrefours par des roulements de tambours.

Nous avons confiance que tous nos confrères se plieront de bonne grâce à l'esprit de ces règlements dont l'application, si elle cause d'abord quelque ennui, aura pour effet ultime de donner à la profession dentaire une tenue plus digne.

Si ces règlements peuvent sembler à quelques-uns trop rigoureux, ils seront d'autre part d'une égale justice pour tous.

ARMAND FORTIER, D.D.S.

Rapport de la Réunion Annuelle de l'Association Dentaire, Tenue à Digby

(Conclusion)

Rapport du Comité de Nomenclature.

Le problème d'épellation uniforme des termes dentaires a été approfondi par les membres du Comité, surtout en vue des publications dans le Journal. L'adoption d'un dictionnaire est nécessaire pour régler cette question. On a discuté l'emploi facultatif des termes "Auxiliaire" et "Ancillaire," pour désigner le personnel assistant le dentiste, dans son travail. Le mot, "Auxiliaire," fut choisi,

comme répondant mieux à l'idée, qu'on veut exprimer, tant en anglais qu'en français.

Rapport du Comité d'Education Dentaire.

On rapporta progrès sur différentes questions à l'étude, à savoir: 1) le cours d'études des hygiénistes dentaires; 2) internat dans les hôpitaux; 3) curriculum minimum pour les Ecoles dentaires

canadiennes; 4) établissement d'un bureau national d'examineurs. Le Comité espère pouvoir présenter un rapport complet sur ces questions, l'an prochain.

Le Comité suggère l'embauchage d'un expert en pédagogie générale pour l'aider dans son travail.

Rapport du Comité de Dentisterie Industrielle.

En coopération avec le Ministère du Bien-Etre et de la Santé Nationale, le Comité a presque complété une enquête auprès d'environ 15,000 industries du pays, au sujet de la dentisterie industrielle. Une compilation partielle de cette enquête fut présentée. Plusieurs de ces industries ont manifesté un grand intérêt pour ce service, qu'elles pourraient prodiguer à leurs employés. Dans ce but le Comité est chargé de préparer un pamphlet sur ce sujet pour le distribuer à ces industries.

Rapport du Comité du Mémorial de Guerre.

La somme totale perçue est \$8,143.80. Cet argent devra être employé à acheter des obligations du Gouvernement Fédéral. Le revenu de ce montant servira à créer des prix du Mémorial de Guerre. Il est décidé de laisser la souscription ouverte.

Rapport du Comité des Bourses.

Un Comité temporaire fut organisé, en mars dernier, pour préparer les conditions de l'attribution des prix du Mémorial de Guerre, de façon à ce que ces prix soient distribués, dès cette année.

Les conditions suivantes furent soumises et adoptées, après amendements:

- 1) L'Association devra défrayer les frais d'administration.
- 2) Trois juges seront nommés, chaque année, par le Comité; l'un d'eux devra juger la forme, soit en anglais ou en français, selon le cas, et les deux autres juger le fond des travaux soumis.
- 3) Chaque juge devra soumettre un rapport écrit sur chaque travail.
- 4) Le nom de l'auteur du travail primé sera annoncé à la réunion annuelle de l'A.D.C.
- 5) Le Comité des Bourses devra soumettre le titre de la thèse de con-

cours, chaque année le ou avant le 1er août.

- 6) Un Comité de cinq membres sera nommé et ce comité sera connu sous le nom du Comité des Bourses et aura comme fonction de régler toutes les affaires se rapportant à l'administration des bourses.
- 7) Le Comité se réserve le droit de ne pas attribuer les bourses, chaque année.

Conditions de l'octroi des bourses.

- 1) Le concours est ouvert à tous les étudiants finissants des Universités canadiennes, à condition qu'ils soient inscrits à une faculté depuis au moins deux ans.
- 2) Le sujet du concours sera annoncé par le Comité des Bourses de l'Association Dentaire Canadienne au doyen de chaque école le ou avant le 30 septembre de chaque année.
- 3) Le personnel enseignant de chaque école sera responsable du choix et de la soumission d'un maximum de trois thèses, traitant du sujet choisi, le ou avant le 25 avril de chaque année.
- 4) Les thèses peuvent être écrites en français ou en anglais.
- 5) Les thèses ne devront pas avoir plus de 3,000 mots. Le manuscrit doit être l'original, écrit au dactylographe sur un coté de la feuille seulement, à double espace et ayant des marges larges.
- 6) S'il y a des gravures, elles devront être faites sur du papier glacé, pour être imprimées convenablement.
- 7) Toutes les références et la bibliographie doivent être insérées à la fin du travail. Toutes les citations doivent être indiquées. Elles devraient être numérotées.
- 8) Trois juges seront nommés par le Comité, et chacun soumettra un rapport écrit, personnel, sur chaque travail soumis. La décision des juges sera finale.
- 9) Les thèses seront classées sur le barème suivant: 70% pour le fond; 20% pour la forme; 10% pour la bibliographie.
- 10) Aucune thèse n'étant jugée éligible pour le prix par les juges, aucune récompense ne sera attribuée.
- 11) Toutes les thèses soumises deviennent la propriété de l'Association Dentaire Canadienne.



CHEZ NOUS ET AILLEURS

XXIèmes Journées dentaires de Paris

Les vingt-et-unièmes journées dentaires de Paris (anciennes journées dentaires franco-belges) auront lieu du 26 au 30 novembre 1947, dans les locaux de l'Ecole Odontotechnique de Paris, 5 rue Garancière, Paris (6e).

La Province d'Ontario établit sa position vis-à-vis les unions

Le Collège des Dentistes de la Province d'Ontario vient, à sa dernière assemblée, de passer la résolution suivante et d'en faire parvenir une copie aux autorités intéressées:

"ATTENDU que la profession dentaire est un groupement de professionnels qui s'occupent de la santé du public et que cette profession est régie par des lois ou règlements, qui n'ont aucun rapport avec ceux généralement utilisés dans le domaine des affaires;

ATTENDU que la profession dentaire possède ses propres associations, auxquelles tous les dentistes paient une contribution;

ATTENDU que les qualifications à la pratique de la chirurgie dentaire exigent de longues années d'études et une compétence spéciale;

Après longue considération, cet organisme est d'avis que les dentistes, employés à salaire ne peuvent être soumis, tant qu'à leur rémunération et leurs conditions de travail, au contrôle et aux négociations d'aucune union ouvrière; de plus, les employeurs, pour régler le sort de leurs employés-dentistes devront s'adresser aux organisations dentaires existantes et, pour cela, faire amender les lois présentes, si la chose est nécessaire."

L'Ontario nomme de nouveaux délégués

Le Collège des Chirurgiens-Dentistes de la Province d'Ontario vient de nommer de nouveaux représentants au Bureau des Gouverneurs de l'A.D.C.

Ces représentants sont:

Dr Harvey W. Reed, Toronto; Dr G. H. Campbell, Orangeville; Dr J. F. Giffen, London; Dr S. J. Phillips, Oshawa. Les docteurs H. L. Field d'Hamilton et F. A. Blatchford de Fort Williams ont été nommés substitués.

Quatre membres de l'A.D.C. à l'honneur

A la réunion de l'American College of Dentists, tenue à Boston, le 3 août 1947, les dentistes canadiens suivants ont reçu le titre de "fellow":

Docteurs Scott Hamilton, d'Edmonton; Harvey Reid, de Toronto; P. G. Anderson, de Toronto; Edmund A. Grant, de Toronto.

Nomination au Ministère de la Santé Nationale

A la demande du Ministère de la Santé Nationale pour un représentant de l'A.D.C., le docteur Prescott Mowrey, de Montréal, a été nommé représentant officiel de notre Association pour une réunion de groupements professionnels, qui s'intéressent au problème du rhumatisme et de l'arthrite. Cette assemblée doit se réunir à Ottawa, à l'automne.

Dixième Congrès International à Boston

La vingt-cinquième session et le dixième Congrès International de la Fédération Dentaire Internationale a eut lieu, à Boston, du 4 au 8 août, en même temps que la réunion annuelle de l'Association Dentaire Américaine. Au delà de 40 pays avaient envoyé des représentants officiels à cette réunion. A cause de l'importance de ces assises, qui marquaient la reprise des relations dentaires internationales, depuis la dernière guerre, l'A.D.C. a délégué quatre représentants officiels, les docteurs Carver, président, Crowe, président sortant de charge, Charon, président du Comité des Relations Internationales et Gullett, secrétaire. La réunion fut marquée par la sincérité de tous les délégués, désirant des buts com-

muns. L'objectif principal du Congrès était de réorganiser la Fédération Dentaire Internationale sur une base stable de façon à fixer les positions de la profession dentaire au sein des affaires mondiales. La Fédération est la plus vieille organisation professionnelle internationale au monde. Actuellement, d'autres corps professionnels s'organisent sur une base mondiale et il est important que la dentisterie conserve et renforce son association existante. Dans son allocution officielle, le président, M. Rowlett, présenta clairement cet objectif. L'A.D.C. a droit à deux représentants au sein de la Fédération. Le docteur E. Charron et le docteur Don W. Gullett furent nommés à ces postes. Le docteur E. Dubeau, un fondateur de la F.D.I., à Paris, en 1900, et représentant de l'A.D.C. à tous les Congrès de la F.D.I., fut nommé vice-président honoraire.

Présentation d'une plaque d'argent à l'A.D.C.

A la réunion générale de la F.D.I., le docteur Carrea, de Buenos Aires, au nom de la Federacion Odontologica Latino Americana a présenté des plaques d'argent à l'Association Dentaire Anglaise, à l'Association Dentaire Américaine et à l'Association Dentaire Canadienne. Le docteur J. K. Carver, président de notre

Association, remercia en termes éloquentes pour cette marque d'estime et de coopération.

Diner offert par l'A.D.C.

Le 5 août au soir, l'A.D.C. recevait à diner, à l'Hotel Statler. Le diner était offert en l'honneur des représentants de l'Association Dentaire Anglaise et environ 20 délégués de nations différentes et l'Exécutif de l'Association Dentaire Américaine étaient présents. Vingt-neuf membres de l'A.D.C. assistaient à ce diner. Le président Carver souhaite la bienvenue à l'assistance, en soulignant la joie des dentistes canadiens à sympathiser avec des dentistes du monde entier. Le docteur Harvey Reid présenta un toast à l'Association Dentaire Anglaise et la réplique fut faite par M. A. P. Husband, représentant officiel de la Grande Bretagne. Le docteur Charron présenta le toast à la Fédération Dentaire Internationale et M. Rowlett répondit au nom de l'Exécutif de la Fédération. Nous fûmes honorés par la présence de M. L. W. Allen, président du Comité des Règlements de la Chambre des Représentants des Etats-Unis. Ce diner marquera une date dans l'histoire de l'A.D.C. et accomplit beaucoup pour cimenter l'amitié entre les différents groupes dentaires du monde.

NOUVELLE METHODE D'ENSEIGNEMENT

A partir du mois de septembre, les étudiants de l'Université Northwestern de Chicago apprendront à exécuter la plus grande partie de leur travail dans la position assise.

L'habitude de se tenir debout, a été déclarée, à plusieurs reprises, par la profession médicale, préjudiciable à la santé du dentiste. Aussi les autorités de cette institution ont décidé, tout en n'éliminant pas complètement l'attitude debout, d'enseigner à leurs élèves à travailler assis. Des témoignages d'orthopédistes ont montré, sans l'ombre d'un doute, que le fait pour un dentiste de se tenir debout, toute la journée—et cela durant des années—lui impose un surcroît de fatigue, mettant sa santé en danger et le forçant parfois à abandonner sa pratique, plus jeune.

Le docteur Edgar Swanson, professeur de dentisterie opératoire et secrétaire de la Faculté, est en charge de cette innovation, qui est rendue possible grâce à un don de la promotion "1921."

Plusieurs tabourets ont été achetés à cet effet et le modèle choisi peut s'ajuster pour un opérateur de grande ou de petite taille et lui permet de garder son équilibre facilement. Ce tabouret est celui qui a été perfectionné par le docteur Carroll Johnson, de Chicago, il y a quelques années.

Compte-Rendu des Activités de la Société Dentaire de Montréal*

par JACQUES DEMERS, Président

C'est non seulement une tradition, mais aussi une obligation pour le Président de faire rapport à l'assemblée générale annuelle des membres des activités de l'année qui se termine.

Ces activités ont été assez nombreuses, si l'on prend en considération la nature de notre société, mais je crois que nous devrions tendre, à l'avenir, à augmenter nos moyens pour nous permettre d'élargir nos cadres et de multiplier pour notre plus grand bénéfice à tous les oeuvres de l'Association.

Au cours de cette année, nous avons tendu tous nos efforts dans ce but-là: la Société a été formée dans le but de créer le groupement des dentistes et de pourvoir à leur perfectionnement scientifique. C'est en regard de ce but que nous avons agi constamment et j'ose espérer que nous avons réussi au moins à avancer d'un pas vers le progrès.

Il s'agissait d'abord de bien définir nos cadres et de prendre une allure qui mit notre société sur un pied d'égalité avec d'autres groupes du même genre. C'est pourquoi nous avons cru que le premier pas logique, après les années d'organisation, était d'incorporer le groupe et de lui donner une existence légale.

La Société est maintenant une personne civile et juridique, une corporation érigée en vertu de la Loi des Compagnies de Québec qui a des pouvoirs et des obligations.

Nous avons maintenant des règlements approuvés par le gouverneur-en-conseil et qui régissent toutes nos activités et la conduite des membres faisant partie de la Société.

Je crois sincèrement que cela nous aidera grandement à mieux atteindre notre but.

Nous avons aussi tâché d'augmenter et d'améliorer les autres avantages que nous procure la Société, et plus spécialement

ceux que nous avons par l'assurance-maladie; nous avons essayé, en autant que possible, d'en faire profiter un plus grand nombre et à leur en faire tirer un plus grand bien. Je n'ai pas besoin de vous donner ici les avantages de l'assurance-groupe, mais je puis vous assurer d'avance que le nouveau conseil continuera à travailler pour en augmenter les bénéfices.

Cette année, le nombre des membres a été porté à cent quarante-cinq (145), c'est-à-dire environ une trentaine de plus que l'an passé. C'est un progrès, mais ce n'est pas encore assez. Le recrutement est absolument nécessaire à notre survie et il faut inculquer chez les membres la nécessité pour eux, non seulement de demeurer membres mais d'en recruter des nouveaux, et surtout leur faire comprendre leur devoir de participer aux activités.

Si nous voulons prendre notre oeuvre au sérieux, nous pourrions entrevoir de grandes choses et nous deviendrons une force qui nous est absolument essentielle, mais nous n'y parviendrons qu'en participant avec assiduité à toutes nos manifestations et en payant nos cotisations.

Nos convocations vous parviennent assez d'avance pour qu'il vous soit possible de réserver une soirée par mois pour nos réunions.

Que chacun se fasse un devoir d'y venir et nous serons assurés du succès.

Nous avons eu, au cours de l'année, neuf conférences données dans l'ordre suivant:

Le Docteur Franklin, au début de l'année est venu nous parler des fractures et de leur traitement, puis ce fut

Le Docteur Coutu, d'Ottawa, qui nous a entretenu des dentiers immédiats. Il fut suivi par le Docteur R. Lussier, qui nous donna une clinique de table.

Après les fêtes du début de l'année, nous avons eu une conférence sur la dentisterie pour enfants, par le Docteur Mac-

*Pour l'Année 1946-1947

Gregor et le mois suivant le Docteur Jean Brault nous parla de l'incrustations sur les dents temporaires.

C'est le Docteur Durand qui nous donna les moyens de prévenir la carie dentaire dans la présentation de son volume: "Comment Prévenir la Carie Dentaire."

Le Docteur Lussier nous commenta un film sur les dentiers partiels.

Enfin, l'aviseur légal de la Société fut invité à nous parler de l'incorporation et du mécanisme des règlements et nous terminons, ce soir, avec une conférence du Docteur Thibert sur l'analgésie.

Comme vous le voyez, nous avons couvert un terrain assez étendu et je puis dire que chaque conférence nous a intéressés grandement, tout en nous instruisant.

Au cours de l'automne, nous nous réunissions à une partie d'huîtres qui a semblé être fort appréciée et c'est le but du conseil de multiplier ce genre de réunions.

Tout cela a été rendu possible par la collaboration enthousiaste des membres et surtout par le dévouement constant du conseil que je tiens ici à remercier et à féliciter de son aide précieuse. Personne dans le conseil a négligé quoi que ce soit pour faire de nos activités un succès.

Permettez-moi en finissant, de féliciter le nouveau conseil élu. Je ne doute pas qu'il est composé d'hommes capables de mener à bonne fin notre organisation et surtout décidés à le faire. Je leur souhaite le plus grand succès, en leur offrant mon entière collaboration.



Photographie prise à Digby, N.-E., lors de la réunion du Bureau des Gouverneurs de l'Association Dentaire Canadienne.

ENQUETE SUR LA PROFESSION DENTAIRE CANADIENNE

Le ministère de la Santé et du Bien-Etre National a complété son enquête sur la profession dentaire du Canada. La nature de ce relevé est bien étendue et classe les dentistes par municipalités au travers le Dominion. Au début, il est dit que la pénurie de dentistes, à ce moment-ci, est temporaire et occasionnée par les besoins extraordinaires de cette période d'après-guerre. On semble d'avis que le nombre d'étudiants aux études dans nos universités, actuellement, est suffisant pour répondre aux besoins immédiats de l'avenir, à moins que le gouvernement fédéral mette en force une législation quelconque d'assurance-santé.

On décrit l'établissement des dentistes comme étant urbain ou rural. Le terme "urbain" est employé dans le sens de celui, qui pratique dans une ville, chef-lieu ou village. Dans ce rapport, au mois de décembre 1946, on trouve que 95.8% des dentistes exercent dans des centres urbains. On note, aussi, que 71% des dentistes ont leur cabinet dans des agglomérations de 10,000 habitants ou plus, quand seulement 39% de la population totale du pays est groupé dans ces villes.

Une grande partie de ces renseignements a été fournie au gouvernement par l'Association Dentaire Canadienne. Ces statistiques couvrant tout le pays sont des sources précieuses de références pour l'avenir. Le rapport est très bien fait et l'A.D.C. espère pouvoir en distribuer quelques copies bientôt.

Lettre aux Gouverneurs, No. 28, Association Dentaire Canadienne.

A L'UNIVERSITE DE MONTREAL



Groupe de dentistes, qui ont complété en juin dernier, un cours d'études post-scolaires d'un an, en orthodontie. Ces dentistes, après examens réglementaires, ont obtenu un diplôme, qui les classent comme spécialistes en orthodontie.

Première rangée, de g. à d.: Louis Lépine, assistant-professeur, Paul Geoffrion, vice-doyen et directeur du Service, Onil Hébert, assistant-professeur. Deuxième rangée, de g. à d.: Louis Bernier, Québec, Robert H. Cohen, Montréal, Otto Bengle, Montreal, R. Kent Tongue, Baltimore, Etats-Unis.



PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

**GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.
397 est Boul. S.-Joseph, Montréal**

NOMENCLATURE DENTAIRE

Chaque groupement professionnel possède son vocabulaire technique, qui l'identifie et favorise l'échange clair et sans ambiguïté d'idées entre ses membres.

La profession dentaire n'échappe pas à cette règle et possède, pour son emploi exclusif, des termes et des mots, qui rendent possible la diffusion des données scientifiques propres à son art.

Comme en philosophie, la définition des termes doit être le prélude de toute discussion et de tout enseignement. La multiplicité des mots, pour désigner une même chose, ne peut que porter à la confusion et prolonge inutilement un exposé.

La plupart des associations dentaires des différents pays possèdent, au sein de leurs comités spécialisés, un groupe de dentistes, qui travaillent à adopter une terminologie identique pour tous ses membres. Aux Etats-Unis, l'Association Dentaire Américaine a constitué un comité, dit de Nomenclature, qui exécute cette besogne de clarifier et d'uniformiser le vocabulaire dentaire. En France, un travail identique s'accomplit, sous la direction de linguistes, qui s'occupent peut-être trop d'étymologie et de recherches sur l'évolution des mots dentaires au cours des âges. Au Canada, sous les auspices de l'Association Dentaire Canadienne, s'élabore un ouvrage identique, qui a pour but l'adoption d'expressions uniformes et standardisées.

Les dentistes de langue anglaise du Canada ont un gros problème à solutionner dans ce domaine de nomenclature. Faisant partie de l'Empire Britannique, ils sont portés, de nature et de sentiments, à employer et à préconiser les termes et l'épellation anglaise; d'autre part, les relations de toutes sortes et la proximité avec les Etats-Unis les influencent à utiliser l'orthographe, la prononciation et les vocables américains. Cependant, le rapport annuel du Comité de Nomenclature recommande l'emploi des façons de dire de nos voisins.

Nous, du Canada français, nous avons aussi nos difficultés et elles résident dans le fait de notre minorité en contact constant avec un nombre considérable de confrères d'origine anglo-saxonne. Nous sommes portés à nous servir de termes anglais pour désigner des techniques ou des objets, qui nous sont enseignés ou montrés dans des revues et des manuels américains. La plupart — pour ne pas dire la totalité — de notre instrumentation et de notre matériel est fabriquée et distribuée par des firmes anglo-saxonnes. Nos réunions nous présentent souvent des cliniciens de langue anglaise. Notre vie courante est entourée d'atmosphère anglais. Tous ces facteurs contribuent à l'utilisation de mots anglais dans notre langage.

Malgré toutes ces influences, nous devrions employer des termes français dans nos rapports avec notre clientèle et nos confrères. Cette lutte constante, d'ailleurs, entre dans le grand principe de notre survivance française. Nous pouvons prendre part, d'une façon intelligente, à cette tâche gigantesque, que poursuivent de nombreux apôtres du français dans tous les coins de notre pays.

Il serait facile de constituer des comités, au sein de nos sociétés dentaires et à l'Université, comités, qui s'occuperaient de dresser une liste de termes français à l'usage du dentiste.

Nous pourrions recevoir une aide efficace de France, dans ce domaine; nous avons des lettres de confrères français, qui seraient heureux de collaborer à ce travail. Il ne s'agit que de s'y mettre.

GERARD DE MONTIGNY.

Réunion annuelle de l'Association Dentaire Américaine, à Boston.

Les dents de l'humanité ne sont pas en très bon état.

Tel était le consensus des 15,000 dentistes de 54 pays, qui se réunissaient, à Boston, au début du mois d'août, pour la première fois depuis 1935.

Le docteur Maurice E. Peters, de Boston, sembla résumer les assises du Congrès, en déclarant: "Nous sommes rendus au stage, où l'exodontiste extrait les dents et où le prothésiste les remplace, non seulement d'une façon esthétique, mais aussi en rétablissant parfaitement la fonction physiologique, mais de façon coûteuse . . . Mais est-ce cela, la dentisterie? . . . Pourquoi les gens vont-ils chez le dentiste, pour finir tous ces traitements avec des dents artificielles?"

Les dentistes; à ce congrès, firent une étude approfondie des mesures préventives possibles. Quelques notes encourageantes:

Le plus grand espoir est encore le fluor mêlé à l'eau, qui fortifie les dents des enfants contre la carie. Les congressistes entendirent des rapports de 26 villes, qui pratiquent l'addition de fluor à l'eau potable et ces communications, à date, sont favorables. Quelques délégués impatients, satisfaits des expériences, proposèrent que, partout, l'eau soit traitée au fluor, sans délai. Mais les autorités des Services de Santé émisent l'opinion que les chercheurs ne sont pas encore certains que les doses de fluor à l'étude sont sûres. En attendant, les dentistes ont découvert un traitement au fluor pour les enfants, qui paraît aussi prometteur: une solution de fluorure de sodium appliquée directement sur les dents. Soumise à des épreuves rigides, cette solution, à date, semble diminuer les caries dans une proportion de 40%. Cependant les officiers des Services de Santé Publique condamnent les panacés à base de fluor.

Discrédités: les dentifrices à base de fluor (sans effet) et les pastilles de fluor (employées sans discernement, elles peuvent attaquer les dents et les os et causer des troubles du rein). Le docteur Bernhard Gottlieb, né à Vienne, et trois de ses collègues de l'Université Baylor, firent part d'un traitement qu'ils prétendent meilleur que le fluorure de sodium: une solution de chlorure de zinc et de ferrocyanure de potasse, qui bouche les fissures des dents et les protègent contre les pénétrations microbiennes.

Pour les adultes, qui ne peuvent être aidés par des mesures préventives, quelques nouveautés sont susceptibles de les intéresser: un anesthésique pour le fraissage des dents (appliqué sur la dent, sans injection), appelé "topocaïne;" une couronne en or pour incisives, confectionnée de façon à ne pas montrer d'or, préconisée par le docteur Arthur Schultz, de l'Université de Washington.



Courtesy of "The Beaver"
Photo copyright, CLIFFORD R. KOPAS
Bella Coola, B.C.

A Typical Scene in that Tarn-Filled Timberline Country of Tweedsmuir Park

● Tweedsmuir Park is in British Columbia lying just east of the crest of the Coast Range, and starting just over the rim of the Bella Coola Valley, which is about 300 miles up-coast from Vancouver.

If you are a horseman, the southern reaches will claim you.

If you are a canoeman, the broad northern shoulders of the park will appeal to you.

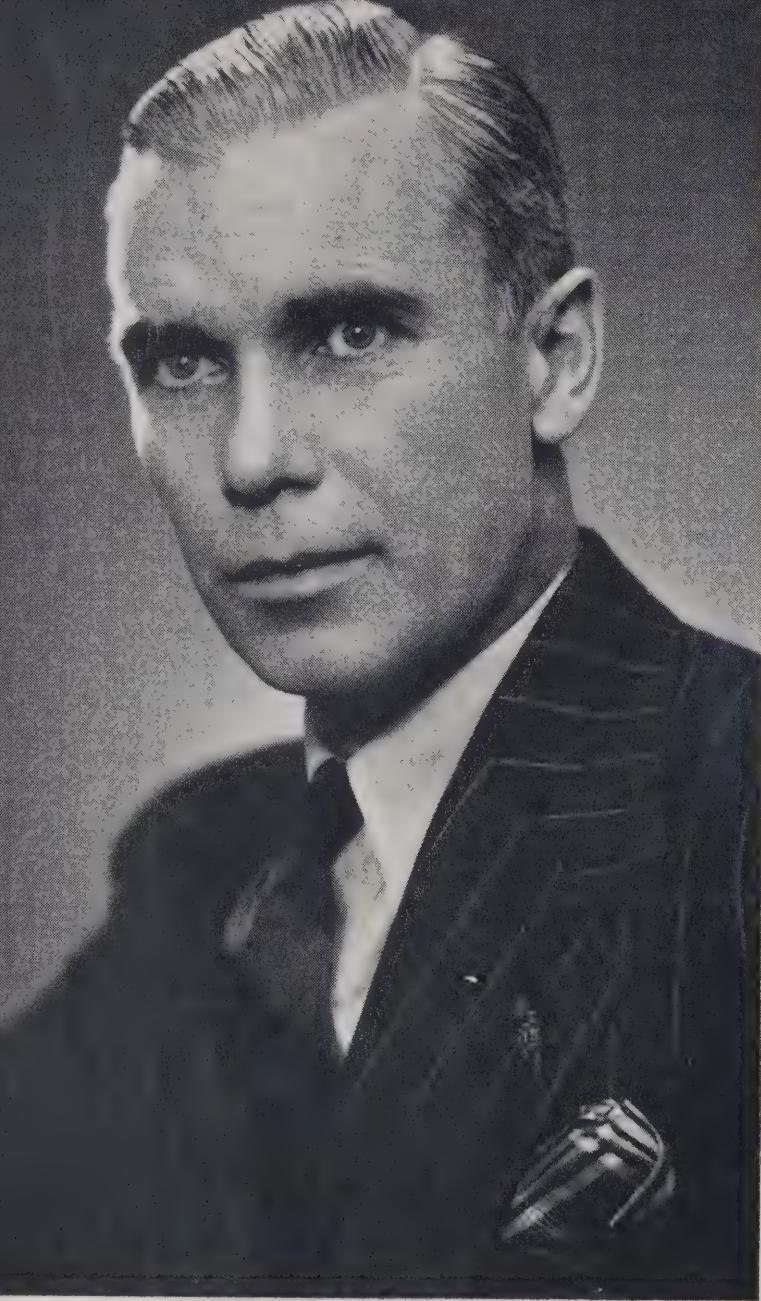
If you are an alpinist looking for rocky crags lifting their perpendicular heights against the skies, the Coast Range, forming the western ramparts of the park will claim you.

If you are a hunter, any part of the park could claim you. Remote from centres of population, and until recently, relatively inaccessible, this area has been a natural game sanctuary.

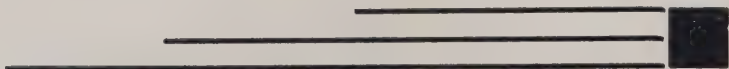
If you are a fisherman, there are streams that have never known the faint hiss of a cast, there are lakes that have never reflected a trolling line, and they are all full of lighters.

—CLIFFORD R. KOPAS, in "The Beaver".





F. H. SHEPHERD, D.D.S.
Toronto, Ontario
President, Academy of Dentistry, Toronto



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, NOVEMBER, 1947

NO. 11

A TALK ON DENTAL EDUCATION*

by W. W. WOODBURY, Halifax, N.S.

ALTHOUGH no subject has been announced you have asked me to speak to you because I am connected with a dental school, so I presume that you wish me to say something about dental education.

If we are to talk of dental education we should be clear on two points. In the first place we should decide what we mean by education and secondly what we mean by dentistry; that is we shall agree with Socrates that we must start by defining our terms.

From the dictionary we learn that literally to educate means to lead out—to draw out: it does not mean to drive, or to stuff, or to overdirect; but it implies stimulation and guidance. It thinks of the teacher as working with rather than dominating those who wish to learn. And it takes for granted that the teacher is still a student. Lincoln Steffens said "A learning mind makes a good teacher" and he might have added that it is the only kind of mind that does make a good teacher.

Dentistry is a calling that has developed in response to a need—a three-fold need. Our professor of surgery used to tell us that surgery rested on a tripod, T.B., carcinoma and syphilis. By analogy we might consider the tripod of dentistry to be caries, periodontal disease and irregularity and malocclusion. Eliminate these three

conditions and there would be very little call for the dentist.

DENTISTRY AS A PROFESSION

I have just referred to dentistry as a calling. Dentistry itself insists that it is also a profession. We shall not attempt a definition of a profession but we shall consider some of the requirements involved in becoming a profession and see how far dentistry has progressed in meeting these requirements.

Two years ago the Halifax Dental Society asked me to discuss the question "What is wrong with dentistry?" And they further asked why it is that students are flocking into the medical schools when, considering the need for dentists, there is an inadequate registration in the dental schools. Also they wondered why the community seems to think more highly of the doctor than it does of the dentist.

Have you ever noticed that when dentistry begins to examine itself it is very likely to compare itself with medicine? There is really a very sound reason for this instinctive comparison as we shall see. In the meantime let us glance at the last of the three questions just noted, for I think that the answer will be found to have some bearing on this matter of a profession and what constitutes dental education.

* Prepared from notes of an address delivered before the New Brunswick Dental Society in Saint John, September 16, 1946.

In the first place is it true that the community does not accord the dentist the same veneration that it does the doctor? Probably—to a certain degree. Then why? Well there is the obvious reason that the doctor is often dealing with life and death and that puts him in a unique position. But there is another reason that is not so obvious. We are rather apt to forget that we are members of a very young profession as professions go; and perhaps the way that we are regarded by the community as a whole and our rather self-conscious reaction to that regard may be due very largely to our youth. We will probably outgrow this feeling as we grow up. We feel grown up but when very young people are very sure that they are very grown up they are usually very serious about it. The effect on their elders is likely to be a more or less tolerant smile.

We can imagine Medicine, an elderly dame who for centuries has been associating with her recognized university equals the "Learned Professions" Law and Theology, saying something like this, "This young person Dentistry who aspires to equality with us is really very young. She was only admitted to our university" set some 75 years ago. She is behaving very much like our young friend Surgery used to: but Surgery has become at home in our circle and has gradually put her house in order and is now one of us. I wonder if dentistry is really doing the same? She seems to be trying hard but will she carry it through?" Thus we appear to have arrived at education for if dentistry succeeds in putting her house in order it will have to be done on the educational level.

THE STORY OF SURGERY

The story of surgery is very suggestive in this connection. Today the basic educational disciplines of medicine and surgery are identical; the medical student is certified in both fields on graduation. When the double degree M.D., C.M. is given it is interesting to

note that the graduate is pronounced *doctor* of medicine and *master* of surgery. Medicine is the older discipline. Its qualified practitioner must be an educated man so he is given the ancient title of doctor, i. e. one qualified to teach; while surgery which started as a craft still carries the aroma of craftsmanship and its qualified practitioner is dubbed master—as a master carpenter might be.

However medicine and surgery in double harness is a relatively recent development. At the close of the 14th century we find a physician at St. Bartholomew's Hospital reflecting the conditions of his time when he complains that the physician who neglects surgery cannot be a good physician and that surgeons without a knowledge of medicine are also good for nothing.

In the meantime it would be just as well for dentists to forget this matter of professional status. If dentistry sees its job clearly and does it well, recognition will take care of itself. If it fails in these regards concern regarding status is rather ridiculous.

I think that the worries expressed in the three questions that were asked me really originated in a fundamental misunderstanding of the relationship between Medicine and Dentistry and that again rests on a failure to realize the difference between Medicine and Therapeutics.

SCIENCE VERSUS ART

Our journals—both medical and dental — often carry the statement "Devoted to the Science and Art of Medicine (or Dentistry)". What is the difference between the *science* and the *art*? The *Science* is the knowledge upon which the *Art* rests. The *Art* is the *doing* that is necessary for the patient. If there is not enough *knowledge* the *doing* may be ineffective or positively dangerous.

The *Science* (sometimes called the pre-clinical sciences) — is the real *fundamental medicine*; the *Art* is *Therapeutics*. This distinction should

be kept clearly in mind. Students, both medical and dental, are likely to be more interested in the art than in the science. The art appeals to them as being more practical. Hence it is an ever-present educational problem to link the art to the science in such a vital way that the student cannot help seeing the necessity of basing his practice on sound science.

THE BODY AS A WHOLE

An example from another field may emphasize for us this growing educational concern. Medical diagnosis (now often called "Internal Medicine") is increasingly falling back on the basic sciences as it seeks to find out what is actually wrong with the person who is sick. It is doing this simply because it has to. How shall we bring this necessity home to the student? The Professor of Clinical Medicine at Columbia University in an article in "Science" last summer suggests that this might be accomplished if the student instead of studying the anatomy or the chemistry or the physiology of the body as separate "subjects" were introduced to what he calls the "dynamic units" of the body such as the respiratory, the cardiovascular or the gastrointestinal apparatus; and as each of these "units" is studied he would have the knowledge and resources of all the recognized academic "departments" brought to bear on the particular system or area under review.

In a sense this is just what dental education quite unconsciously has done, organized itself around a part of one of the dynamic units of the body, viz. the gastrointestinal. This has had its advantages and its disadvantages. One result, and it has been an advantage so far as it went, was the rapid development of mechanical techniques to meet the problems of repair which in the nature of the case were mechanical problems and which dentistry had to face. On the other hand this preoccupation with mechanical problems carried the disadvantage that dental interest was centred almost

exclusively in one phase of its own dynamic unit or anatomic region with only a passing nod to the other great dynamic units of the body. Thus dentistry lost sight of "the body as a whole"—the oneness of the body. It even lost sight of the vital connection between its own specialized area and the rest of the body. And in its preoccupation with the techniques necessary to repair and replace a vulnerable tissue it forgot to be concerned with the pathological sequence, the end result of which made these repair techniques necessary.

In other words dentistry was not vitally aware that prevention should be its chief objective. Prevention presupposes aetiology and what has dentistry learned about causes? Very little.

This picture fortunately is changing. Dentistry is becoming aware of its ignorance and is taking steps to reduce it. The formation in March 1945 of the Associate Committee on Dental Research of the National Research Council of Canada supports this statement so far as our own country is concerned. The fact that this action was taken by the council so promptly after the Canadian Dental Association had requested such a committee indicates that our profession can get support along these lines when it shows that it means business.

And with this growing interest in research, dentistry is making valiant efforts to base therapeutics on a foundation equal to that of medicine—or is it? I think it would be truer to say that dentistry by and large to date is determined to be a profession. I think there is some doubt whether dentistry has fully made up its mind to pay the price of being a profession: in fact whether it really understands the price that must be paid. If it does not do this it will not attain the status that it so much desires, and it will not, in the long run do the job that it has started out to do.

DENTISTRY OF THE FUTURE

Is dentistry in the future to be a real profession or a craft? Is it to be a

therapeutics based on fundamental medicine in the broad biological sense as other recognized divisions of the healing art are? Or will its schools in the main turn out skilled technicians and little else? At the present time this is an unanswered question as applied to the profession as a whole. A healthy sign is that some of our severest critics of dentistry have been within our own ranks. In an article a few years ago Milo Hellman, himself an orthodontist, asked the question "Are orthodontists scientists?" and gave his own answer—"emphatically no". And LeRoy Johnson has referred to modern dentistry as occupying "the twilight zone between a profession and a trade."

What then is the matter with dentistry as a profession? The answer is that judging by its actions it has not yet decided if it will be a genuine "learned profession." What is a learned profession? Abraham Flexner discussed this interesting question in 1930 in his book "Universities American, English, German". I have already said that dentistry is a vocation and that it is determined to be a profession. Flexner asked how we could distinguish professions that belong to universities from vocations that do not belong to them: and he replied that "Professions are, as a matter of history—and very rightly—'learned professions'; there are no unlearned professions," and then he explained that "Professions are learned, because they have their roots deep in cultural and idealistic soil," and he further said that "professions derive their essential character from intelligence." Applying this high standard to the universities of his own country he came to the conclusion that of the many so called professional faculties that have been developed a clear case can be made out for law and medicine. He admits that "most lawyers and most physicians are mere craftsmen; (and that) it is even true that their training largely occupies itself with teaching

them how to do things", but he makes it clear that where this is the case university education has been degraded and has been confused with technical training. He insists that the object of a professional education is to produce "disciplined minds, well stored with knowledge, possessing a critical, not a pedantic edge, . . . persons (that) may thereafter for the most part be safely left to their own devices."

How does dentistry fare when such criteria are applied to it? Is it a learned profession by such standards? Perhaps the best that can be said for dentistry today is that it is a *learning* profession. If it is determined to keep on learning it may become a *learned* profession in time, i.e. a real profession in the deepest sense.

What course must dentistry take to reach this goal? I do not think anyone has the answer, the definite blueprint, at the present time. Harvard insists that dental education must march with medical education absolutely for at least two years of the course. Are they right? Time will tell. At least we should be glad that perhaps the leading university on the continent (Harvard) is doing some active experimenting, the results of which can be studied and assessed. However, organized dental education has not been too glad about it so far. If Flexner's evaluation of present day professional faculties in the universities is sound dentistry's habit of keeping a weather eye cocked towards its elder professional sister is also sound. Only as a therapeutics based on fundamental medicine will dentistry's professional status be assured. Does that mean incorporation into medicine? Not necessarily. But why be so concerned about that? Dental autonomy cannot be an end in itself as some dentists seem to think. Dentistry's autonomy or otherwise in the long run will be determined by its success in visualizing its field and its ability to meet the need thus visualized. And it will depend on other factors as yet dimly seen.

CONCLUSIONS

In the light of all this what should the dental schools be doing?

1. They should be turning out graduates soundly educated in the basic medical sciences, and on this foundation trained in such technical skills as will get them well started on the road to become competent operators.

2. They should definitely plan to surround their students during the undergraduate course with an atmosphere of scientific curiosity by providing and encouraging teachers who are themselves learners conscious of their own ignorance. A proportion at any rate of these teachers should be actively engaged in projects calculated to add to the sum total of dental knowledge.

As we become convinced that the web of dental education must be woven by shuttling the woof of art through the warp of science and as this conviction becomes reflected in

more balanced curricula fostered by better informed teachers we may hope for the following results:—

In the first place a higher percentage of our graduates should start out with minds accustomed to independent thinking: consequently their actions though based on sound principles will not be dictated by a slavish adherence to tradition. Practitioners thus equipped will be the backbone of societies like this. They will be anxious to foster refresher courses and study groups; because conscious of their own lack of knowledge and skill they will be determined to add to the one and improve the other.

In the second place such a program and atmosphere in our schools and increasingly in our profession should attract more often than it does today that rare individual so needed in the dental field—the original investigator.

When these earmarks of a genuine profession are more generally in evidence dentistry can feel that it is definitely on its way to its goal.

There are two avenues of approach in any science: the scientific, that is the approach of the discoverer; and the philosophic, that is, the approach of the man who endeavours to comprehend and interpret the true meaning of things and to dig down to their ultimate reality.

Thousands of people knew what milkmaids said about small-pox, but it took a Jenner to appreciate its true meaning, and so he became one of the landmarks in the art of healing. The Jenners of science are rare birds for the simple reason that the philosophic approach is rarer than the scientific.

Claudius Galen said: "Diagnosis is the awareness of all things present." If I might presume to add one word and alter Galen's dictum to "Diagnosis is the awareness and comprehension of all things present," we then have the ideal and ultimate combination of the scientific and philosophic approaches, and if we can satisfy these two conditions at all fully, the world is at our feet.—B. R. Townend, L.D.S., in the "Dental Record."

I am convinced that people overworking, under nervous tension, and physicians and dentists especially, are more prone to coronary heart disease than others. I am convinced, too, that part of it at least can be avoided, by following the same "prudent rules" which we lay down for our patients. Dentists should seek what Hufeland calls the extensive life, by being moderate in all things—eating, drinking, practising, and playing.—N. C. Gilbert, M.D., in Oral Hygiene.

DENTAL CARIES AND RELATED SUBJECTS

by B. GOTTLIEB

Baylor University College of Dentistry, Dallas, Texas.

(Concluded from October Journal)

ACIDOPHILUS COUNTS

The high acidophilus counts encountered in most cases of caries susceptibility are produced apparently by the possibility that clusters of microorganisms accumulate at the open entrances of the organic invasion roads. If these roads are tightly obstructed, no microorganisms can accumulate here and the acidophilus counts are low. In testing out a chemical on its ability to produce caries resistance, we may replace now the acidophilus counts by checking the desensitizing effect on dentine. This is a more comfortable way. If the chemical can produce obstruction of the dentinal tubuli it can obstruct the invasion roads in the enamel too. It was not realized until lately that the same chemicals were recommended, apparently independently, for both desensitizing dentine and caries prophylaxis, namely, silver nitrate, zinc chloride and sodium fluoride.

The acidophilus counts give us second hand information that there are a number of invasion roads open. A test of the quality of the saliva may give us first hand information, if the quality is such as to be able to obstruct the invasion roads. If the surmise is correct that the presence of a certain phosphatase in the saliva determines its ability to deposit calcium salts in the invasion roads we may be able to find out whether this enzyme is present in the saliva or not. The work of Eggers-Lura entitles us to hope that such a time is not far away.

A CLEAN TOOTH NEVER DECAYS

A number of misunderstandings should be clarified which caused considerable confusion. Everybody knows the slogan "A clean tooth never decays"! Parents and dentists often blame the children with caries susceptibility for

not keeping their teeth clean, as do children with caries immunity. It is argued that the soft deposits on the teeth favour the development of dental caries. That attitude towards these poor children does not appear to be justified. If we impregnate the teeth of a susceptible child without paying any attention to the habits of tooth brushing, we will observe that the teeth are by far cleaner afterwards. The obstruction of the entrances to the invasion roads obliterates the footholds for any deposit and the enamel washed by the saliva appears clean and shiny. Thus we have to change our approach. It is not soft deposits which produce caries, but *caries susceptibility*, caused by open invasion roads which *facilitate the formation of soft deposits*.

THE TENACIOUS PLAQUE

The misinterpretation of the tenacious plaque proved fatal in the explanation of dental caries, being based on the same misunderstanding. It was correctly observed that caries susceptible children may have tenacious plaques. They often stick to the tooth surface so strongly that we may have to use a scaler in order to remove them. They may form very quickly again in the same place. After a few months we find a cavity in such a place. A complicated explanation was offered which resulted in the statement that tenacious plaques caused the formation of dental caries. In fact, it is the other way around. An invadable lamella furnished the foothold formation of the tenacious plaque. The plaque is fixed to the tooth surface by this foothold. Numerous histological observations prove the correctness of this statement. If we remove the plaque and polish the surface we have left the microorganisms in the entrance of the

lamella intact. By proliferation they form the plaque again at the same place. If we coagulate the organic content of the lamella, including the microorganisms and obstruct the living place by additional precipitation, we prevent the new formation of the plaque and the development of caries. Thus we see also in the case of the tenacious plaque the susceptibility to caries, that is the open entrance to a lamellae is primary and the formation of the tenacious plaque secondary. In teeth where all entrances to the lamellae are obstructed, no tenacious plaque can develop.

SWEET TOOTH

Into the same category belongs the sensitivity of some enamel spots to sweet materials. We know that there is no possibility for enamel becoming sensitive. It is apparently a lamella which is open all the way to the dentine and carries a sugar solution quickly this way. The change of osmotic tension at the dentino-enamel junction produces sensation. If left alone, a cavity will develop in such a place soon, where the road is made palatable to microorganisms by sweetening. By impregnation we can remove such sensitivity, obstructing the lamella and thus prevent caries formation.

GREEN STAIN

The development of green stain has the same background. Here green stain producing microorganisms develop in the open entrances apparently mainly of the prism sheath. If we polish away the green stain it often comes back soon. We cannot remove the microorganisms from inside the prism sheaths. But if we impregnate the enamel by coagulation and bulky precipitation after removing the stain it does not come back. The living place for the microorganisms has been obliterated.

THE PRINCIPLE OF IMPREGNATION FOR CARIES PROPHYLAXIS

The foundation for running a reasonable therapy and prophylaxis is the proper understanding of nature's

language. It happens sometimes that a misunderstanding develops between research men and nature. But also in the cases in which we succeed in understanding nature's language the further procedure needs careful consideration. If something is found wrong, pathological, and we understand how the wrong situation developed, we have to realize that we might run into difficulties if we try to undo the wrong exactly the same way as it was developed. In many cases we are not able, or it is not practical, to work the same way nature did. In our case, some wrong quality of the saliva is apparently to be blamed for disposition to dental caries. At present we can neither change the quality of the saliva nor can we obstruct the invasion roads reliably by introducing calcium salts. We have a more reliable way of using tools which are not at the disposal of nature. If we precipitate the protein of the invasion area with zinc chloride we produce a permanent compound between the chemical and the protein. If such coagulation is followed by producing a bulky precipitation, we obstruct the organic invasion roads in short time. That is the result of understanding nature's way of doing things, and transforming these principles in using tools which we can handle properly.

IMPREGNATION FOR CARIES PROPHYLAXIS

The principles involved in the obstruction of the invasion roads become clear very slowly. Silver nitrate, zinc chloride, formalin and sodium fluoride were used for desensitizing dentine. Some success was achieved but not fully. Lukomsky of Leningrad, who recommended sodium fluoride had to go as high as 33% in order to achieve desensitization of dentine. Such a high concentration of a very potent poison is out of the question in trying to produce caries immunity in children. We have to realize that the way of action of sodium fluoride is by attraction of calcium into the fluorinized matter. Sodium fluoride does not coagulate pro-

tein. We may call that the *Sodium Fluoride Principle*. Silver nitrate, formalin and zinc chloride coagulate protein. The precipitation of silver in using ammoniacal silver nitrate seems not to increase the effect. The precipitated silver particles are apparently too small and too few. This coagulation of the protein matter we may call the *Silver Nitrate Principle*. If we coagulate with one of the mentioned chemicals and in addition produce a bulky precipitation, which is insoluble in water, we add to the silver nitrate principle the sodium fluoride principle. The desensitizing effect is full corresponding to the addition of both principles. From that we can judge the obstructing effect of any organic road in the tooth structure. We precipitate the 40% zinc chloride with 20% potassium ferro cyanide. In order to facilitate the penetration we dry the tooth with benzine for removing of an eventually isolating fatty layer and moisten it with 1% solution of nacconol powder in distilled water as a wetting agent.

Zinc chloride precipitated with potassium ferro cyanide results in the formation of the water insoluble salt of zinc ferro cyanide. The insoluble salt is apparently tied tightly to the protein of the teeth by the foregoing coagulation, which means the formation of a chemical compound. In dentine we can judge the effectiveness by testing out to see if sensitivity to cold water has disappeared. Younger found in experiments during four years, a *reduction effect on caries* susceptibility of about 90%.

ITEMS WHICH OFTEN CAUSE THE IMPREGNATION TO BE A FAILURE

1. The benzine should be dried with air in order not to allow it to mix with the following fluid and so dilute it.
2. In case the wetting agent is used separately (1% nacconol) and not mixed to the zinc chloride and potassium ferro cyanide (1% tween 20 adding 1 gram of tween 20 to 100 grams of the 40% zinc chloride

solution and the 20% potassium ferro cyanide solution) the surplus of the solution should be picked up, leaving the surface only moist for the impregnation, otherwise the following solution is diluted.

3. After leaving on the 40% zinc chloride solution for 1 minute the surplus should be picked up with a dry cotton pellet leaving the surface of the teeth just moist.
4. The application of the 20% potassium ferro cyanide should be repeated several times until the milky precipitation can be seen. After that is accomplished the impregnated surface should be washed with water which intensifies the precipitation. In cavities a cotton pellet soaked with water should be put in for a few seconds.

FLUORINE AND TEETH

So much effort has been made in finding out the relationship of fluorine and teeth that it may be advisable to discuss this subject on a broad basis. The entire relationship of fluorine to teeth and bones is to be explained by the fact that fluorine and calcium attract each other twice as strongly as iron and oxygen, producing rust. We shall discuss two facts known, without explanation, for more than a century. The one fact is that fossil bones contain more fluorine than fresh bones. It is a fact, nothing exciting about it, but as far as I know no explanation has existed for it. The other fact is that enamel contains fluorine normally and it was considered so significant that it has been explained that the fluorine content makes the enamel apparently stronger. We are accustomed to see nature doing nothing superfluous. It seems that is another example of a misunderstanding between nature and research men.

The fact that fossil bones contain more fluorine than fresh ones seems to have the following explanation. Everywhere in the soil there are traces of fluorine, in some places more, in some less. This fluorine is present in the form

of the water soluble sodium fluoride. Whenever it rains the water soluble sodium fluoride is collected by the fossil bone. The same seems to be true for the enamel. Nearly all drinking water contains at least minute quantities of sodium fluoride. In drinking water it passes the calcium rich enamel and every time a fraction of the passing fluorine is attracted to the enamel, the result is that every enamel contains some fluorine. I am sorry if this explanation destroys the romantic view concerning fluorine in enamel.

Where more fluorine is available in the drinking water, it produces the most pronounced changes in that tissue of the body which contains the most calcium, namely, the enamel. Here we have to differentiate between changes which are accomplished during development and those which develop after eruption of the teeth. It should be emphasized that both changes are based on the same fact which has already been mentioned, namely, the strong attraction between calcium and fluorine. During development of the enamel the fluorine somehow comes through the blood stream to the enamel matrix. It cannot be explained as yet how the fluorine can pass the intestines and the blood without combining with the calcium in these places and appear uncombined at the place where the enamel is formed. If it combined with the available calcium on the way insoluble calcium fluoride would result which is an inert material that cannot produce any chemical or biologic action at all.

MOTTLED ENAMEL

Coming in the neighbourhood of the tooth germ the fluorine may combine with the incoming calcium, earmarked for some place in the enamel. Once the calcium has combined with the fluorine it cannot be transported any more to the enamel and the concerned piece remains undercalcified. But if not combined, fluorine succeeds in reaching the enamel, it attracts here more calcium and a hypercalcification results. Also the prism sheaths are fluorinized

and attract calcium, thus producing a homogeneous calcification, resulting in the formation of transparent enamel. The opaqueness of the normal enamel results from the fact that the prism sheaths remain uncalcified running between the highly calcified prisms, which have a different reaction. This formation of strips of different degrees of calcification, namely, normal, hypo- and hypercalcified ones produce the *mottling* of the enamel. Two other results are developing from the fact that the prism sheaths become calcified too. Sometimes fluorine enamel becomes brittle. The non-calcified prism sheaths seem to cement to each other the calcified strips of the prisms and the interprismatic substance. If the prism sheaths are calcified too, this cementing is deteriorated and brittleness results. This calcification of the prism sheaths has on the other hand also an advantage. No microorganisms can invade along these calcified roads and resistance to dental caries is increased.

After eruption we have also to differentiate between a decalcification and a hypercalcification effect. In high concentrations of fluorine in the drinking water, the passing fluorine takes some calcium from the enamel. In fluorine areas with 5 ppm and more, we find children who have lost their enamel and the denuded dentine can be bent like leather. It is the same appearance as in histological decalcification with acid, where the enamel is lost and the decalcified dentine can be bent. In lower concentrations going down to 3 ppm sodium fluorine in the drinking water, the enamel is not dissolved but made porous so that stains from the food may penetrate into the superficial parts and a brownish discolouration results.

REMOVING OF MOTTLING AND BROWN STAIN

Both the brownish discolouration developing after eruption as well as the white mottling, developed before eruption can be removed by rubbing into the enamel a 15% hydrochloric acid with a soft rubber cup, neutralizing right

afterwards with a saturated solution of sodium bicarbonate according to H. Younger. That treatment should be repeated at intervals of several days until all stain and mottling have disappeared. No harm to the enamel results from the use of the acid.

FLUORINE AND CARIES

The hypercalcifying effect produced by fluorine in the drinking water is beneficial. We figure it works the same way as the deposition of calcium salts into the organic invasion roads probably facilitated by phosphatase enzymes in the saliva. If the organic invasion roads are fluorinized repeatedly, these structures attract calcium from the surrounding enamel and the roads are obstructed by the water insoluble calcium fluoride.

The administration of calcium fluoride tablets is based on a misunderstanding. Calcium fluoride, being insoluble in water is biologically an inert material, of which no biologic action whatsoever can be expected.

The enriching of the drinking water by pouring in sodium fluoride up to 1 ppm will probably help. It appears harmless anyhow. The future will show. It appears advisable not to wait until the experiments in the drinking water show results, but to start impregnation right away. Dean and associates have shown that the drinking water benefits mostly the upper front teeth. In drinking, we wash these teeth most. The back teeth are affected to a lesser degree. Again, fluorine can definitely not replace obstructing the invasion roads by coagulation of the protein then followed by bulky precipitation.

DRY SOCKET

Dry socket is a condition where naked bone is exposed to the saliva. We would have a dry socket after every extraction if there were no blood clot to cover up the bone. The clot organizes into connective tissue covered by epithelium and the hole previously occupied by the extracted tooth is again closed. In the dry socket this hole is

kept open by the denuded dying bone which is in connection with the living bone. It takes some time until the connective tissue succeeds in severing the damaged from the healthy bone. The necrotic bone is eliminated as sequestra and the repair can take its normal course. The dying bone exposed to the saliva causes great pain and packs are used in order to protect the naked bone from being irritated by saliva and food until it is severed and eliminated.

PREVENTION OF DRY SOCKET

We can extract teeth so that we make quite sure that no dry socket will develop. Before extraction we retract the soft tissue. After extraction we remove the alveolar margins and smooth them. They are resorbed anyhow in the course of healing. We then protect the smooth bone with the retracted gingival margins and don't rely on the blood clot.

THERAPY OF DRY SOCKET

If a dry socket has developed, we proceed the following way. Clean the wound by syringing out after having made a block anaesthesia. Retract the soft mucosa as far as it exists until we expose definitely healthy bone. Chisel off and smooth the exposed bone and cover it by the peeled off mucosa. After we have performed the operation everything quiets down.

SOME X-RAY FINDINGS WHICH NEED PATHOHISTOLOGICAL EXPLANATION

In the foregoing we explained x-ray findings in connection with periapical involvement which were caused by hyperfunction of the parathyroids. In the following we are going to discuss some other x-ray findings. Their explanation may render service to the dental profession.

SCLEROTIC BONE

Sclerotic bone in the neighbourhood of infection has been interpreted sometimes as being infected bone. That is never the case. It is not the sclerotic bone that is infected, but the infection is present in the rarefied area which is

surrounded by sclerotic bone. If sclerotic bone is found around the apex of a tooth, the infection is in the root canal. It happens sometimes that the tooth is extracted and sclerotic bone remains that is harmless. There is no reason to remove it. It may be considered as walling off the infection. Fish of London has explained it apparently correctly as being produced by the weak irritation from the centre of infection, acting as stimulation to surplus bone formation.

SUPERNUMERARY TEETH OVERLYING A NON-ERUPTED TOOTH

Sometimes we find one tooth prevented from eruption, some shadows being visible over the crown. We find that these are groups of small supernumerary teeth which are preventing the tooth eruption. As in all impacted teeth, we have to remove the obstacle, expose the crown past the greatest circumference and prevent the opening from closing again by cauterizing the borders of the opening with silver nitrate crystals for about five days. The occurrence of supernumerary, or under numerary teeth, is an anomaly which cannot be explained, like most anomalies. Sometimes the dental lamina is over productive, another time it is so weak that it cannot even furnish the normal complement of teeth.

REMNANTS OF ROOTS OF THE SECOND DECIDUOUS MOLAR

Sometimes we may find clinically, or in the x-ray, root parts mesially or distally from a second premolar. These are root remnants from the second deciduous molar which have not been resorbed by the passage of its slim successor. There is no reason to interfere, when they are not coming out by themselves. A case has been reported where such a remnant came out in close contact with the premolar. A pocket was caused, representing a permanent damage. In most cases they are incorporated as part of the surrounding bone and became definitely stabilized.

CLEFT UPPER LATERAL INCISOR

We have known for a long time that this tooth shows more anomalies than any other tooth. It may be absent, may be double, or otherwise malformed. If it is present double in a case of cleft palate one is situated on one side of the cleft and the other one on the other side. That proves that two germs are provided for the upper lateral, each on one side of the separation line between the maxillary and the frontal process. Lately we have found a number of other anomalies in the upper lateral which are never observed in other teeth. One is a splitting of the root mesio-distally, so that a mesial and distal part result which are more or less separated from each other. We do find often, especially in the lower front teeth, indications of splitting the root into a labial and lingual one. That is explained by a phylogenetic development of our dentition from a coalescence of two rows of primitive teeth with one cone, like we find them in the reptiles. But a splitting into a mesial and distal part we could find only on upper laterals. In addition, we find a number of cases where two layers of enamel extended into the tooth, mostly into the pulp providing apparently an open entrance into the pulp. The pulp was found necrotic. It is also possible that the contact of enamel with the pulp tissue is not tolerated and the pulp becomes necrotic. This extension of enamel deep into the body of the crown may be in connection with the outer normal enamel of the tooth or may be separated from it.

The background of all these findings seems a developmental one. The frontal part of the face develops from three parts. Two maxillary processes join with a frontal process. They join about ten days after tooth buds start to develop. One half of the upper lateral develops in the maxillary process and the other half in the frontal one. In the majority they fuse and form a perfect lateral incisor. If each half continues to form a whole tooth, we have two laterals. If neither half forms a

tooth, the tooth is absent. The same way, a malformation may develop. In some cases the root parts remain separate. That cannot be satisfactorily explained, the root being formed at a late stage. But the fact that they are split mesio-distally, sometimes obtains. Some

ameloblastic layer may become persistent between the two halves of the crown and form enamel in the tooth which has the appearance of a cleft lateral, corresponding to the appearance of a cleft palate.

(Conclusion of paper presented at the Northwest Conference on Dental Medicine held at Harrison Hot Springs, B.C., May, 1947.)

(The following is Dr. Gottlieb's latest instructions for impregnation for caries prophylaxis received October, 1947.—EDITOR)

Techniques of Impregnation for Caries Prophylaxis

Teeth which are to be extracted, should be removed before impregnation. A thorough prophylaxis should be given, tenacious plaques removed and the tooth surfaces polished. A group of three, or at most, four teeth, destined for impregnation should be isolated with cotton rolls. It is of utmost importance to keep the teeth surfaces, which have to be impregnated, meticulously dry, using rubberdam if necessary. Remaining moisture on the teeth surfaces has proved to be the most common cause of failure.

Now wash the teeth thoroughly with benzine which permits the fluid to penetrate better.

There is a great difference in the surface tension of different chemicals. Sometimes the surface tension is so high that the fluid forms globules which roll off, and we do not even succeed in making it penetrate into a cotton pellet, so when we pour out the necessary quantity of the two chemicals which we are going to use, for instance, zinc chloride and potassium ferro cyanide, into two dappen dishes we add a drop of our surface tension lowering chemical to each portion, (1% solution of nacconol). We use a 1% solution of nacconol LAL also as a wetting medium.

It is always advisable to pick up the surplus of any chemical used from the gingival margin with a cotton pellet. We do it with nacconol, and especially so with zinc chloride and potassium ferro cyanide. If we allow the nacconol

to flow freely over the surrounding soft tissue we have paved the way for following strong chemicals which flow also over the soft tissue and damage it. For impregnation we recommend a 40% solution of zinc chloride in distilled water. If we do not allow it to contact the mucous membrane for a prolonged time we may use this concentration without hesitation. In order to make sure that it penetrates between the contact points we pass dental floss through contacts. We then apply 20% potassium ferro cyanide, again passing dental floss between the contacts and pick up the surplus from the gingival margins. Water insoluble zinc ferro cyanide forms. The zinc chloride should be left on the tooth one minute in order to obtain good penetration. Where a thin wall of dentine separates the tooth surfaces from the pulp, we precipitate the zinc chloride with potassium ferro cyanide after less than thirty seconds and repeat the impregnation more often.

In that way we do not allow the zinc chloride to penetrate to the pulp, thus damaging it. The application of the potassium ferro cyanide should be repeated after every 30 seconds until a milky precipitation appears. This precipitation develops slowly. The precipitated surface should then be moistened with water which completes the precipitation (in cavities). A pellet soaked with water should be placed in the cavity. Never being sure

that some place has not been omitted, it is advisable to impregnate a mouth twice at intervals of a few days. It is advisable to check on the result of our impregnation by checking its power of desensitization of dentine which gives us instant information about the action on caries prophylaxis. Some dentists report that the desensitization effect on dentine is best when we impregnate the first time with zinc chloride-potassium ferro cyanide, then make the second impregnation with 10% silver nitrate solution and precipitate with a saturated solution of calcium chloride. After this double impregnation with 2 different combinations we achieve the best desensitization. It appears advisable to use the same procedure also in impregnation for caries prophylaxis, impregnating the first time with the zinc chloride combination and the second time with the silver nitrate combination. May be that some organic materials combine better with the zinc chloride and others with silver nitrate; in the front teeth we should perform the second impregnation with zinc chloride if we wish to avoid the slightest risk of discoloration.

It is of utmost importance to impregnate the occlusal surfaces of the first molars as soon as they come through. When we save the pits and fissures of these teeth from becoming carious, we render a great service.

Between the ages of six and twelve new teeth and new belts of teeth continue to erupt. At this period at least three double impregnations a year are necessary. After that the continuous tooth eruption slows down and one impregnation a year seems to be enough in order to take care of the newly erupted belts. At such times the entire clinical crown is impregnated. When the cementum surface has to be taken care of, again three impregnations a year seem to be advisable since it is difficult to penetrate the cementum.

It is advisable to impregnate every case after cleaning and to check the root surface for sensitivity to cold, not leaving such a sensitivity unattended.

Whenever we expose dentine either in cavity preparation or in tooth preparations for any kind of crown we open a great number of dentinal tubuli, and they should be impregnated right after preparation and the impregnation should be repeated in the same sitting until cold water is not felt.

In subgingival cavities we impregnate with 10% silver nitrate solution and precipitate it instantly with one per cent hydrochloric adrenalin (RBoelsche).

In partial dentures we render great service by advising the patient to remove the denture during the night in order to give the saliva a chance to wash the clasped tooth. In addition we will do good to impregnate all teeth at least three times before fixing the appliance.

Before filling of *treated infected root canals* we impregnate moistening the walls with nacconol after drying with benzine, and using paper points as carriers.

The term *carious dentine* is misleading. We have to differentiate between *necrotic and decalcified dentine*. The decalcified dentine has lost its calcium salts, but is otherwise histologically intact, and there is not the slightest reason for removing it when we run the risk of exposing the pulp. We impregnate until cold water is not felt, and make a temporary cement filling. This filling should not be removed before three months have elapsed. When we remove it after three or more months we usually find the dentine hardened and we can finish the preparation and filling in comfort. By this procedure, many cases of pulp exposure can be prevented.

PARTIAL SPECIALIZATION AND ITS ROLE IN GROUP AND PRIVATE PRACTICE

by MURRAY L. DYMENT, D.D.S., Toronto, Ontario

A PLEA FOR OFFICIAL RECOGNITION

AN EDITORIAL by Dr. M. H. Garvin, editor of the Journal of the Canadian Dental Association, appearing in the June issue under the title "Specialization" was very timely and significant. Recently a movement has been on foot by so-called "100 Per Centers" to give recognition only to specialists who devote 100 per cent of their time to a chosen specialty. Their societies refuse to admit men in partly specialized fields whose qualifications should entitle them to membership. Dental schools take a similar attitude by not certifying them as specialists.

Dr. Garvin, in his excellent editorial, states:

"This question of specialization requires investigation. When a man must agree to limit his practice one hundred per cent to his specialty before he can be registered as such, ideals have to be thrown out of the window. For many years I have limited my personal practice largely, in a group, to the diagnosis and treatment of periodontal conditions. I consider myself as much a specialist as if I agreed to limit my practice exclusively to this field, but because it would not be in the interests of my patients nor of the group, I would not dream of requesting registration as a specialist on the one hundred per cent basis."

The American Academy of Periodontology established over thirty years ago has accepted partial specialists as well as general practitioners as members by virtue of their skill and reputation and provided they were endorsed by two members in good standing. This highly ethical and reputable society has recognized mem-

bers of the profession for having rendered the best in dental service to their patients, and for undertaking to teach and promote the principles and practice of periodontology among its members and the dental profession.

In a recent article on Group Practice¹ John Oppie McCall, prominent periodontist and pedodontist in charge of the Guggenheim Clinic, New York, states:

"It is not necessary that all dentists in the group be specialists in the full sense of the term, or that each limit himself to one branch of the practice. Interchange within certain branches is possible. . . I propose that in the interests of economy, whose benefits can be shared by both dentist and patient, dentists set up group practices either as simple office sharing groups, or, preferably as groups of specialists or *partial specialists*. In such a plan lies the greatest benefit to the people served and the ultimate greatest benefit to the dental profession both in financial reward and dignity."

In view of the above statements, can private dentistry afford to ignore the handwriting on the wall, without taking stock? The entire outlook and attitude of the profession has to be re-oriented. We must face the fact that socialization plans, insurance schemes, and governmental interference are gaining momentum in official political circles. Costly specialized dentistry rendered by the "100 Per Centers" is jeopardizing the survival of private practice. It is shaking public confidence and support because it must necessarily cater to people whose earnings are in the higher brackets. Then too, it discourages those men who continue to study for

years to become proficient in certain fields. If they cannot get the encouragement and recognition of their fellow practitioners for their extra effort to render only the highest standards of service to their patients, they may discontinue this effort, and dentistry will suffer.

I believe that we must think in terms of the masses. In the interests of economy and efficiency, the rendering of a superior service to a far greater number of people than is being done at present, is imperative. The lower we can reduce dental costs, keep dentists occupied all the time, the higher will be the percentage of people who can be served. And above all, the survival of private practice will be assured.

How can we effect economies and at the same time render efficient service? Again our present editor of the C.D.A. who is a prominent diagnostician and periodontist with a vast background of clinical experience provides an excellent answer. He cites the case of a periodontist who is working on a patient requiring the extraction of a loose first molar, the filling of a small buccal cavity in the second molar and the surgical treatment of the gums surrounding the remaining teeth on that side. He says, "Is it not in the interests of the patient that all these operations should be completed at one time under the application of a local anaesthetic by the same operator? Of necessity these problems will arise and it is not fair to the patient to insist on two injections by two different dentists."

About ten years ago when the writer was still a member of the American Academy of Periodontology and attended their annual meetings, he visited many offices and discussed the routine followed by outstanding periodontists with reference to the problem of referred patients. The consensus of opinion was that they would hesitate to send some of the more difficult cases back to their original dentists

who did not possess more than averages skill and experience to execute the finer restorative dental work indicated.

It is gratifying to know that in recent years more men are seeking post graduate courses than ever before, with a view to partial specialization in certain dental fields. This is a necessity. Otherwise the laborious work of either periodontist or orthodontist who is aiming to establish ideal occlusal and periodontal conditions can result only in failure. Who has a better opportunity to feel and experience the pulse of the many complex dental problems than the general practitioner who is in a partially specialized field, be it operative, prosthodontia (partial dentures) or periodontia. He deserves the respect of the specialist, particularly now, when dental schools are certifying young men who have had but a few years of clinical practice either in general dentistry or in their chosen specialty. Are these neophytes more worthy of the confidence of the profession? Are they able to serve the public as efficiently as the finest representatives of our profession in the partially specialized fields?

One of our prominent Canadian periodontists states that unless a specialist gets the backing and support of his fellow practitioners in the matter of referred patients he will not survive for long. The survival of the fittest will eliminate the lesser men from the field. This is a stronger argument in favour of partial specialization since it prepares the aspiring specialist years in advance through the hard and practical road of comprehensive general dentistry. Personal contacts with fellow practitioners at annual meetings, study groups and conventions will solve the later problem of referred patients on whom success or failure depends.

The article is written in a spirit of constructive criticism and the writer welcomes points of view from other

practitioners who may be interested in the future of dental education.

I wish to state categorically that the practice of periodontia and restorative prosthetics or operative dentistry are no longer separate categories. The accompanying photographs will illustrate practical phases of the problem of chronic periodontitis where immobilization partial fixation or occlusal reconstruction are indicated. The only alternative for these loose teeth which could be useful for years would be extraction. Many of these restorations have been in the mouths of patients for 15-20 years.

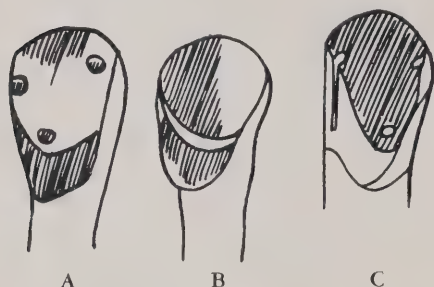


Figure 1.

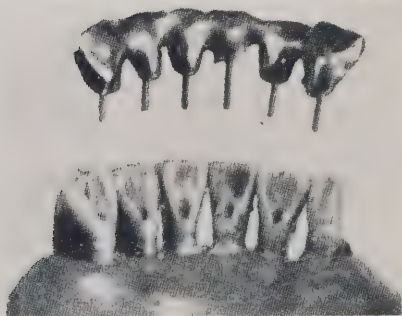


Figure 2.



Figure 3.

Class 1: Stationary or fixed splints for the retention of Natural Teeth that are quite loose i.e. second and third degree mobility. (See figures 1, 2, 3.)

INDICATIONS: In older patients where either the six upper or six lower anteriors are involved the use of cast backings with 20 gauge single iridio platinum pins; or three-pin slipper types of preparations for each tooth or $\frac{3}{4}$ crowns with pit veneer attachments (fig. 1a, 1b, 1c.)

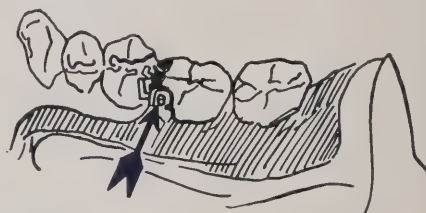


Figure 4.



Figure 5.

Class 1: Type b. Inlay and Gold Dummy combination for Posterior Teeth. (Figures 8, 9a, 9b).

INDICATIONS: Where mesial drifting of a second molar has taken place into the place of a missing first molar. Consists of two inlays as retaining abutments and a gold dummy. (Fig. 9a, 9b) shows precision Stern Rest, male part in gold dummy, female in inlay abutment. Unit may be soldered if fixation is thought necessary. Prevents extrusion and spreading of teeth with

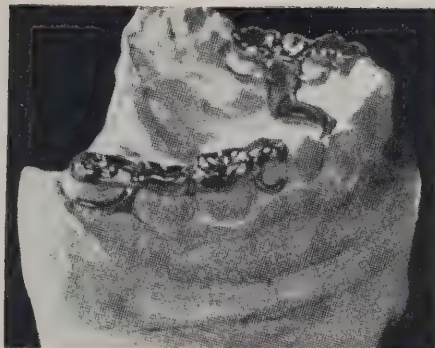


Figure 6.

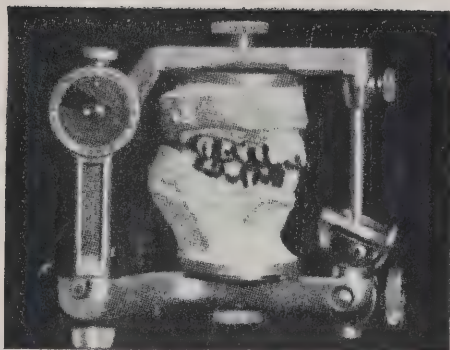


Figure 7.



Figure 8.



Figure 9a.

Figure 9b.

consequent destruction of the periodontal structures.

Class 2. Chronic Periodontal Types of Overbite and Overjet.

Type A. Requiring Occlusal reconstruction of the Natural Denture⁹ (Figures 5, 6, 7). i.e. rebuilding of occlusal surfaces of all the natural teeth.

INDICATIONS: (a) Closed bite types with excessive cusp wear. (b) Depressed, interlocking and interfering cusps with traumatogenic occlusion on the protrusive and lateral ranges. (Figs. 5, 7).

Type B. (Fig. 6.) Partially Edentu-

lous Arches with excessive overjet or overbite.

(1). The use of a removeable bite raiser is indicated with inlays either as part of the partial or built on the natural teeth if preferred.

(2) In the Free-end Types where posteriors are missing and there is periodontal trouble in the anterior region, anchorage may be made non-rigid by the use of distal extension stress breakers with adjustable screws Fig. 4. See J. R. Schwartz Text Book on Tech. for Stern type interlocked precision attachments boxed in as per diagram.

(3) Splinting of two or more end teeth adjoining edentulous area⁸ by use of inlays soldered together and the use of many rests of continuous lingual clasp (Kennedy type) is also good practice.

The writer trusts that these examples of practical cases in his office during twenty-one years of practice will stimulate further interest in the recognition of partial specialties.

REFERENCES

1. Group Practice:—N.Y. Jour. of Dent., May 1947. John O. McCall.
2. Temporary and Permanent Splints for Loosened Teeth:—Dom. Dent. Jour., Feb. 1933. Murray L. Dymont.
3. The Use of Fixed and Removeable Splints in the Practice of Periodontia:—Am. Jour. of Orth. & Oral Surg., June 1945, 354-370. Sidney Sorrin, N.Y.
4. Textbook of Periodontia:—Ed 2 Philadelphia S.C. Miller.
5. Occlusal Reconstruction and Bite Coordination:—J.A.D.A., Oct. 1932, Vol. xiv. E. E. Bailey.

6. Occlusal Reconstruction:—Jour. A.D.A., Mar. 1938, pp 372-383. By H. D. Grubb, Cleveland, Ohio.
 7. Simplified Pin Technique for Anterior Abutments:—Jour. Ont. D Asso., Oct. 1938. By Saul Copeland, Toronto.
 8. Occlusion on Partial Dentures:—Jour. C. D.A., Apr. 1941. By Chas. H. M. Williams, Toronto.
 9. A Contribution on Overbite in its Relation to the Normal and Pathologic Physiology of the Denture:—Dom. Dent. Jour., Sept. 1933. By Murray L. Dymont, Toronto.
 10. Ideal Stressbreaking for Partial Dentures:—Jour. A.D.A., May, 1943. F. van Minden, Chicago.
 11. Methods of Procedure in Treatment of Overbite in Adult Dentition:—Jour. C.D.A., Sept., 1936; Oct., 1936.
 12. Food Impaction:—Jour. A.D.A., Aug. 1930, pp 1513. Dr. Burgess Contrivance. By P. Isador Hirschfeld.
- Notes from a course on Precision Casting. By Christy M. Delmas.
22 Bloor Street West.

ANNOUNCEMENTS

NATIONAL CONVENTION OF CANADIAN DENTISTS

June 20, 21, 22, 23, 24, 1948.

MANOIR RICHELIEU, MURRAY BAY, *Province of Quebec*

APPROACHES TO MURRAY BAY:

Going by plane or train:

To Montreal or Quebec, from either place, to Murray Bay by boat.

Going by car:

- (1) Through Quebec City, via Route No. 15 to Murray Bay (93 miles).
- (2) By the South Shore of the St. Lawrence to Riviere du Loup (ferry) to St. Simeon. St. Simeon to Murray Bay (25 miles).
- (3) To Montreal or Quebec (store your car), from either place to Murray Bay by boat.

Going by boat via Quebec:

Leave Quebec, C. S. L. Pier	June 20, 7.30 A.M. (E.S.T.)
Arrive at Murray Bay	June 20, 12.00 (noon) "

Returning:

Leave Murray Bay	June 24, 1.25 P.M. "
Arrive at Quebec,	June 24, 6.00 " "

ROUND TRIP FARE \$6.00

Going by boat via Montreal:

Leave Montreal, C. S. L. Pier	June 19, 6.45 P.M. (E.S.T.)
Arrive at Murray Bay	June 20, 12.00 (noon) "

Returning:

Leave Murray Bay	June 24, 1.25 P.M. "
Arrive at Montreal	June 25, 7.00 A.M. "

All rates mentioned below include meals, room, fare and taxes:

2-Berth Stateroom	2-Berth Stateroom Toilet	Twin-bed Stateroom Bath
\$31.45	\$34.35	\$41.80

SAGUENAY SIDE-TRIP

Leave Murray Bay for the Saguenay	June 24, 1.25 P.M. (E.S.T.)
Arrive at Quebec	June 25, 6.00 P.M. "
Arrive at Montreal	June 26, 7.00 A.M. "

QUEBEC — MURRAY BAY — SAGUENAY — QUEBEC

2-Berth Stateroom	2-Berth Stateroom Toilet	Twin-Bed Stateroom Bath
\$25.90	\$27.60	\$32.80

MONTREAL — MURRAY BAY — SAGUENAY — MONTREAL

\$44.85	\$48.30	\$58.65
---------	---------	---------

Please note that there is only a very limited number of twin-bed staterooms with bath available on the boat.

STAY AT MANOIR RICHELIEU

Room with bath, meals, taxes	per day, \$12.30
Duration of the convention	4 1/4 days, \$52.20

- N.B.—a) All rates are for one person. Double-room occupancy by two persons compulsory.
b) For hotel and boat reservations or any other information, please write to:

DR. GUSTAVE RATTE

140 St. John St., Quebec City, Quebec.

ANNOUNCEMENTS

Université de Montréal — Faculty of Dental Surgery

POSTGRADUATE COURSES 1947 - 1948

The Faculty of Dental Surgery of the Université de Montréal, with the aid of a grant from the W. K. Kellogg Foundation, is resuming its postgraduate courses for the 1947-1948 session and cordially invites all practitioners to take advantage of them. The following is the schedule:—

ORAL SURGERY:—

Course of one complete week: April 19 to 24, 1948.

Two-week courses, 3 days a week: February 9, 10, 12, 17, 18, 19, and March 8, 9, 11, 16, 17, 18, 1948.

ENDODONTIA:—

Three-week courses, one day a week: February 24, March 2, 9, and April 6, 13, 20, 1948.

Courses of a complete week: Jan. 19 to 24, and May 3 to 8, 1948.

PROSTHODONTIA:—

Courses of a complete week: Feb. 9 to 14, and April 5 to 10, 1948.

Two-week courses, mornings only: Dec. 1 to 13, 1947, Feb. 23 to March 6, and April 12 to 24, 1948.

ORTHODONTIA:—

A nine-day postgraduate course in the fundamental and technical instructions on the twin-wire mechanism will be given, for orthodontists only, at the end of January under the direction of Dr. Joseph E. Johnson of Louisville, Kentucky, and his associates, Doctors Joseph D. Eby, Henry V. Barber, jr., and Clare K. Madden. Only a few places are still available.

As for the one-year graduate course, only a few places are still available.

Midwinter Clinic of Chicago Dental Society

The 1948 Midwinter Meeting of this Society will be held February 9-12 at the Stevens Hotel.

DENTAL HYGIENIST

In the opinion of this writer, as well as all the men he has interviewed on this subject, a busy and successful general practice of dentistry is hardly conceivable today without the aid of a capable and efficient dental hygienist. Feeling, as many of us do, that frequent periodical prophylaxis is an important keystone in the whole phase of preventive dentistry, departments for the dental hygienist have been laboriously and painstakingly built up over a period of many years of effort. Today, the shortage of hygienists is acute. Isn't it time that something positive was being done about it?

Organized dentistry has admirably demonstrated its ability to present a united and effective front when occasion demands it. Within the organization there are many men who have definite, positive convictions on some of these problems; the determination and the enthusiasm to do something about them; the willingness to devote time and effort to their solution. Why aren't these men recruited to the task, with definite assignments to seek and find solutions, and with the authority and support of the entire profession to back them up? Why do we always wait, wait, wait? Verily, it is high time for action if we are not to find ourselves in a situation where help comes "too late and too little."—From editorial in Jour. of Mich. State D. Soc.

The Forum

THE DOMESTIC PROBLEM

Condensed from Guy's Hospital Gazette.

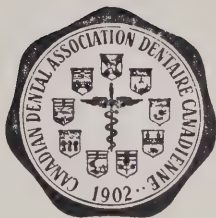
The doctor's wife is beset by all the usual worries that face any housewife, but there is one problem in particular which seems designed to cause more than the average number of grey hairs per week, namely, that almost insuperable difficulty, glibly referred to as—the domestic problem.

To fulfill successfully her duties these days the practitioner's wife must, of necessity, possess the unique quality of being able to appear in two entirely different places at the same time. She must be able to stand in a queue for fish and, at the same moment, be prepared to answer the telephone or obey the slightest whim of that most merciless of inventions—the front-door bell. Naturally she must cook the dinner, clean the house, bath the children and perform all those other delightful pastimes that help to overfill a housewife's day, but also, at a moment's notice, she must become a polite receptionist and a sympathetic listener. She must never cease to be meticulous in her dress for should she attire herself shabbily, or even hastily, it will be noticed and remarked upon and she will feel that she has let down her husband's reputation as well as her own. She must retain that equable temperament that the patients expect of her, in spite of the fact that deep down in her innermost self she is probably fighting that almost irrepressible temptation to batter Mrs. Jones's children to death or let fly a volley of abuse at the neurotic old gas-bag at the other end of the telephone line whose empty and

long-winded prattle is successfully ruining the lunch.

So few people are able to obtain, let alone afford, domestic servants these days that those members of the public who really need such help are naturally wondering what has happened to make this domestic problem so grave and, even more important, what is to be done about it.

Apart from such factors as the war, conscription into national service, and increased wages in other occupations, the improved and more widespread system of general and specialized education has undoubtedly a great deal to do with it. Having told *everybody* that he or she carries a field-marshal's (or field-commandant's) baton in their knapsack and, furthermore, educated them to become field-marshals, it is little wonder that the more menial jobs in life, such as domestic service, are scorned. Instead of having a steady source of ignorant flunkies from which to choose, we are presented with a band of learned revolutionaries who quote Marxism to us and tell us what Jean Jacques Rousseau (whoever he was) said in his "Contrat Social" (whatever that was). Instead of having straw behind their ears, they have pencils, and the only sickles they have ever seen are on flags. Regretfully we must admit that, with the advent of this enlightened age, the good old serf has disappeared from our land, and those who might have become faithful old family retainers are in danger of becoming Prime Ministers or Chancellors of the Exchequer.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Waye, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgcombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

PRACTICE MANAGEMENT

In an address welcoming the new dean of the New York University, College of Dentistry, some months ago, Dr. Arthur H. Merritt of New York City, former President of the American Dental Association, stated that dentistry beginning as a small group, without organization or the facilities for education, has, in the brief space of a single century, created a system of professional education which is second to none of its kind in the world, but that dentistry must not rest on past accomplishments as educational standards of today will not meet the needs of tomorrow. He further states that if dentistry is to occupy its logical place in health service, the dental schools must assume leadership, for upon them rests the responsibility of whether dentistry shall develop as a craft and its practitioners as craftsmen, or whether it shall take its place among the learned professions.

W. W. Woodbury, in his scholarly paper appearing in this issue of the Journal, states that dentistry, by its actions, has not yet decided if it will be a genuine "learned profession" but that he believes that dentistry is becoming aware of its ignorance and is taking steps to reduce it; that the dental schools should be turning out graduates soundly educated in the basic medical sciences, that the students during their undergraduate course in an atmosphere of scientific curiosity, with minds accustomed to independent thinking will be anxious to foster refresher courses and study groups later on, because, conscious of their own lack of knowledge and skill, they will be determined to add to the one and improve the other.

Russell W. Bunting of Ann Arbor in a recent article states that

dentists everywhere are becoming conscious of their need for advanced study in the various fields of their profession and great demands are being made for post-graduate or graduate education; that if dentistry utilizes its new opportunities wisely this present trend can be consolidated into a permanent improvement of the profession.

The splendid vision of these leaders in our profession, and that of many others, calls for unqualified approval. Dentistry can and must develop into a great profession, and this can only be brought about by an adequate system of dental education. At the Boston meeting of the American College of Dentists, the only subject discussed was Dental Education. It is probably the foremost subject in dentistry today.

However, there is one phase of dental education to which I wish to refer particularly at this time and that is dental practice or dental economics. This is a subject which has been too long neglected in the curricula of our colleges. It is significant that at the Boston meeting of the House of Delegates of the American Dental Association, the delegates approved a recommendation of the president that the teaching of economics in dental schools be improved.

Dentists may be trained in the finest way possible as to the ideal techniques in various operations, they may have the finest vision as to the lofty character of their profession, but if they do not know how to run a dental practice, and have to learn the hard way by years of experience, they are greatly handicapped. The fact is that many of our most prominent dentists, after many years of practice, still labour under unnecessary handicaps as to office charts, records and business systems, because they were started off on the wrong foot and never got around to travelling on the right foot. After a man has been in practice for a number of years, it becomes increasingly difficult to change his whole system of bookkeeping.

This problem has been brought home to me in looking over the papers on the subject of dental practice in the Dominion Dental Council examinations. When the answer to a certain question seems to be obviously wrong, one hesitates about marking down the answer when a large number of the candidates give the same answer. It is clear that they were taught this method. In a recent examination, one student stated that he would have a discount column on his patient's chart so that when he did some work for the patient amounting to, say, fifty dollars and the prevailing fee for such service in his community was only forty dollars, he would enter up the difference in the discount column. However, one could hardly blame the college teacher for that answer. But that is only an aside; my impression is that the average dental graduate simply does not know what dental practice is all about. He purchases an expensive set of books, produced by some publishing house and recommended by his college professor and then tries to follow directions. As the years go by he may or may not improve on his system but how much better it would be to have started off with an adequate system in the first place.

I am told by one prominent man in the dental supply business that students are advised at college to purchase a complete loose-leaf book-keeping system, that later on many find it bulky and unwieldy and because they like to have a patient's chart on the cabinet while they are operating they tire of the college system and approach the dental supply man to recommend some form of record card. From observation this dental supply man feels that there is a great need for a simplified bookkeeping system for the average practitioner, that there are still many men who do not have dental nurses, particularly men in the rural areas, and that even though they have a nurse they do not wish to bother with a complicated bookkeeping system. It is further stated that these two groups represent a rather large proportion of the total dentists of our country.

In order to check up on college methods, I wrote to all five Canadian dental schools some months ago to obtain copies of the business systems advocated in these schools. One school declined to send copies, as they were revising their system. One school promised to send samples but they have never arrived. The other three graciously gave me all the information I desired. One could not help but feel that there was not the slightest uniformity in the procedures taught. One could not help but be amazed at the time lost, in some cases, if these records were properly kept. One just had to wonder what would happen if, in years to come, these dentists decided to form a group practice and had to carry on with the records which had been used up to that time.

This whole matter is important, very important, and at least one answer seems clear to this writer. Why not have the men who teach this subject in our Canadian dental schools meet around a conference table, bring in, also, an expert accountant, and if possible, a business efficiency man, encouraging also dentists who have given this matter special study and have had years of experience, to send in recommendations, then with all available information at hand, adopt one system that appears to be reasonably efficient and have it taught in all our schools? Individual dentists could, of course, vary this approved system to meet their special requirements but they would at least have something fundamentally sound with which to start.

M. H. G.

"The popular passion for security through government and law is a dramatic confession of people's growing preference for bondage rather than freedom. Government can give its citizens either freedom or social security, but it cannot give them both. World events have shown that people are seldom aware of the steps leading to economic or governmental serfdom until they have gone too far to retrace their course."—Henry C. Link.

Talent is developed in solitude; but character in the streams of the world.

—Goethe

BOOK REVIEWS

Advanced Radiodontic Interpretation, by Clarence O. Simpson, M.D., D.D.S., Professor of Radiodontics in the Washington University, School of Dentistry; Author of the *Technique of Oral Radiography, Principles and Practice of Radiodontics and Toothsome Topics*; 150 illustrations on ten plates; third edition; 78 pages; published by the C. V. Mosby Co., St. Louis, Mo., 1947. Canadian Agents, McAlinsh & Co., Ltd., Toronto, Ont. Price \$11.00.

The author of this fine work has long been recognized as a leader in the field of Radiodontics. Dr. Simpson states that many of the illustrations contained in this book are of manifestations which were found only once in five thousand patients, and others only once in thirty thousand patients. These unusual cases may never occur in the average practice but on the other hand they may turn up any day, so for the one who wishes to be prepared for the interpretation of unusual cases as well as the conditions seen more frequently this book should prove invaluable.

M. H. G.

Practical Full Denture Prosthesis, by Joseph Simeon Landa, D.D.S., Clinical Professor of Dental Diagnosis, New York University, College of Dentistry. Formerly assistant Professor of Prosthetic Dentistry and Chief of Prosthetic Clinic, New York University, College of Dentistry. 356 pages, well illustrated. Published by Dental Items of Interest Publishing Company, Incorporated, Brooklyn, New York. Price \$9.50.

Professor Landa approaches this difficult but necessary branch of our service with a seasoned and sympathetic attitude acquired from years of direct association with the problems involved. He recognizes that "full denture prosthesis has in recent years become a vast scientific discipline with ramifications into the fields of mechanics, bio-mechanics, anatomy, physiology, pathology and psychomatics." With this premise he endeavours to teach a practical system of full denture prosthesis and encourages the dentist to conserve his own

time by becoming sufficiently well versed in the strictly technical phases that he can give proper instruction and criticism to the technician and then entrust him with those procedures which he is competent to perform. The dentist himself has enough to do developing his professional skills and can render better service by concentrating on thorough chair procedures.

The book gives an excellent "course" on full denture prosthesis commencing with anatomy, mouth examination, roentgen diagnosis and prognosis. Under this heading Dr. Landa advises how to approach the psychological problem of promises. Some eighteen chapters discuss the technical phase from impressions to phonetics. Useful chapters deal with burning mouth, sense of taste, gagging and trouble shooting. The last two chapters give a very helpful discussion of cleft palate restorations—a problem not often met by the average general practitioner but a most difficult one when it does appear.

This book makes another useful addition to dental literature.

KENNETH M. JOHNSON

Accepted Dental Remedies, Thirteenth Edition. Published August 15, 1947, by the Council on Dental Therapeutics of the American Dental Association, 222 East Superior St., Chicago, Ill. Price \$1.50.

This publication which appears yearly has an established place in our dental literature and should be in every dental office. It contains a list of official drugs, selected to promote a rational dental materia medica and descriptions of acceptable nonofficial products, approximately 600 in number.

New features in this edition include sections on p-chlorophenol and sulphadiazine. The portions dealing with the fluorides, penicillin, nutritional factors, prescriptions, formulae and tables, and the iodine preparations have been revised extensively. Many new vitamin products and penicillin dosage forms have also been added.

M. H. G.

"A library of wisdom is more precious than all wealth, and all things that are desirable can not be compared to it."—Philobiblion.

ROYAL CANADIAN DENTAL CORPS NEWS

Supplementary List of Royal Canadian Dental Corps Officers

RETIREMENTS

Capt. D. B. McAdam, 17 June, 1947	Toronto, Ont.
Capt. J. E. Newell, 27 June, 1947	Hamilton, Ont.
Capt. J. D. Vautour, 16 June, 1947	Richibucto, Kent Co., N.B.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

1948 Annual Meeting at Murray Bay

The dates of the 1948 Annual Meeting are as follows:

Board of Governors Meeting begins Thursday June 17.

Convention—Monday June 21 to Thursday 24 inclusive.

Plans are proceeding for next year's meeting which will be held on the above dates at the Manoir Richelieu, Murray Bay, Quebec. Information will be released in the near future in respect to rates and reservations.

Dental Companies for Canadian Army Reserve Force

Eight dental companies have been authorized for the Canadian Army Reserve Force. These companies are established on a field company basis and will provide a means for ex-CDC officers and recent graduates to continue their military training and affiliation. For information and terms of service, application should be made to the Officer Commanding the dental company of the area in which the applicant resides.

Officers Commanding and addresses are as follows:

- 1 Coy—Lt.-Col. C. L. Strachan—
260 Queens Ave., London, Ont.
- 2 Coy—Lt.-Col. L. A. Kilburn—
Lister Bldg., Hamilton, Ont.
- 3 Coy—Lt.-Col. L. E. Kent—
256 - 44th Ave., Lachine, Que.
- 4 Coy—Lt.-Col. A. Moisan—
926 St. Valier, Quebec, Que.
- 5 Coy—Lt.-Col. W. G. Dawson—
390 South Street, Halifax, N.S.
- 6 Coy—Lt.-Col. J. E. Abra—
1255 Wolseley Ave., Winnipeg, Man.
- 7 Coy—Lt.-Col. W. H. Smith—
256 Flora St., Ottawa, Ont.
- 8 Coy—Lt.-Col. H. A. Simmons—
2017 - 15th Ave. West, Vancouver, B.C.

Radio Address by Minister of National Health

On July 26 1947, The Honourable Paul Martin, Minister of National Health, gave a radio address entitled "Putting Teeth into Our National Health Program." The Minister stated in his address:

"The closest and most effective cooperation exists between my Department and the Canadian Dental Association, in all matters calculated to improve the dental health of the people of Canada. The Association is to be congratulated on its efforts to bring a new conception of dentistry into Public Health, and to introduce a greater knowledge of Public Health into Dentistry."

Invitation for 1949 Annual Meeting

Dr. L. J. D. Fasken, President of the Western Canada Dental Society, on behalf of the Executive of that body has extended an invitation to the President and Executive of the Canadian Dental Association to meet with the Western Canada Dental Society at Saskatoon in June 1949.

Prince Edward Island Increases Grant

The following communication has been received from the Secretary of The Dental Association of Prince Edward Island:

"At the annual meeting of the Dental Association of Prince Edward Island on September 11 the following resolution was passed: "That for the year 1947 our subscription to the Canadian Dental Association be increased from \$5.00 to \$6.00 per member. That our annual dues for 1948 shall be \$15.00 and that \$8.00 of this amount shall be contributed to The Canadian Dental Association."

"I can assure you that the members of the Association appreciate the good work that C.D.A. is doing."

Dr. A. J. Coughlan Appointed Representative for New Brunswick

At the recent annual meeting of the New Brunswick Dental Society, the resignation of Dr. Howard MacDonald, as N.B. Representative to the C.D.A., was accepted and Dr. A. J. Coughlan, 75 Charlotte St., Saint John, was elected as C.D.A. Representative.

Dr. MacDonald has served for several years, and recommended that he be replaced, and it was with regret that the N.B. Society conceded to his request.

Dr. Coughlan has had considerable experience in the work of dental organizations and we welcome him to the C.D.A. Board of Governors.

Films Available from National Film Board

1. OUR TEETH (Their Growth and Structure): 10 minutes.

This film demonstrates the growth and structure of the deciduous and permanent teeth. Designed for instructional purposes, the film places particular emphasis on the organic vitality of the teeth and gives reasons for, rather than methods of, good oral hygiene.

2. ABOUT FACES: 15 minutes; Colour.

This is a U.S. Public Health Service film dealing with tooth decay and emphasizing the need for regular dental examination and treatment from infancy through adulthood.

3. TOLD BY A TOOTH: 10 minutes.

This is a dental health film for young children. It deals with the four points of a balanced dental hygiene program: Proper nutrition; exercise of the teeth and gums; correct use of the tooth brush; and regular visits to the dentist.

4. YOUR CHILDREN'S TEETH: 14 minutes.

This film was produced for the U.K. Ministry of Health in 1945. It is a dental health film for parent audiences, covering all essential points in the care of children's teeth, and demonstrating the physiology and growth of the teeth.

(Note: A shorter version of this film, designed for school use and with an American commentator, is available under the title, YOUR TEETH.)

Members of the Association may be interested to know that all the above films may be obtained from the National Health Film Library, distributed by the *National Film Society of Canada*, 172 Wellington Street, Ottawa. A small service fee is charged, and booking requests for the films should be forwarded to the Society well in advance of the proposed screening date.

The National Film Board now has in production for the Department of National Health and Welfare, a twenty-minute colour film on dental health. This film is expected to become available in about two months' time and may then be obtained from the National Film Library at the above address.

NEWS FROM THE PROVINCES

SASKATCHEWAN

Saskatoon Dental Society

This Society had as its guests at the October meeting the following: Drs. J. A. Carver and Don W. Gullett, President and Secretary of the Canadian Dental Association; Dr. L. J. D. Fasken, President of the Western Canada Society; Dr. A. Blair, President of the Saskatchewan Dental Council as well as the members of the Council and a number of dentists from the central and northern parts of the province.

Having these gentlemen as our guests was indeed a pleasure for the local society and

the meeting lasted five hours which indicates that the items discussed were of great interest. We wish to pay tribute to Dr. Carver and Dr. Gullett for the manner in which they are dispatching their duties. A visit by these men is an inspiration to the members of the profession.

Dr. Carver spoke at length on a great many matters pertaining to the profession such as the story of the Canadian Dental Association; dental education; auxiliary bodies; income tax returns—advising that we make honest returns as apparently there are a few who have not done so; income tax exemption for the use of automobiles and expenses of post-grad-

uate courses; dental health; fee schedule; the 1948 meeting of the C.D.A. at the Manoir Richelieu at Murray Bay, Quebec; the need for a full time secretary; and the financing of the Association. (The Saskatchewan Council just that day had decided to increase the grant per member to the C.D.A. from \$5.00 to \$8.00.) Dr. Carver said that there were a few cases of Industrial dentists having been forced to join the unions. He regretted this and felt that every dentist should be relieved of any attachment to such regulations.

Dr. Gullett in referring to the prospects of Health Insurance, repeated the rumour he heard in Manitoba that this would be an issue in the next Federal election. He deeply regretted that this subject should become a political football.

In referring to Labour Unions he mentioned that labour union heads were clever, and were looking for any advantage to themselves. He stated that the C.D.A. had legal advisers working on this matter. Dr. Gullett, in concluding, exhorted one and all to be prepared to readily accept any responsibility that might be forthcoming.

Dr. Nagle reported to the Society, as chairman of the committee appointed to study the proposed services under the new Health Unit to be instituted in this district. In conclusion, he reported that the committee recommended that the Department of Health at Regina be requested to send a qualified member to report to our society, upon the services to be expected under the new unit. This recommendation carried unanimously.

L. H.

MANITOBA

Manitoba Dental Association

On October 2 the Manitoba Dental Association held a special meeting to welcome the new President of the Canadian Dental Association, Dr. Ken Carver, of Montreal, who accompanied by Dr. Don W. Gullett, Secretary of the Association, has now completed a speaking tour through western Canada for the purpose of discussing problems of the past, present and future affecting public welfare in which the Canadian Dental Association is vitally concerned. The charge is occasionally levelled at us by newspaper editors that we are a self-governing monopoly disguised as

an instrument to protect the public. This statement was part of an editorial in the Winnipeg Free Press within the past five years. The attitude of the Canadian Dental Association toward public welfare and the public utterances of its officers are in direct contradiction to the charge.

For several years now we have been visited by the President of the current year of the C.D.A. accompanied by Dr. Gullett and one is constantly impressed with the high calibre of the new President who has been the representative of the province from which he comes for several years as a delegate, now called a Governor, until he finally works up through the offices to become President. Dr. Carver measures up with his predecessors and gave a very full and comprehensive report of the affairs of the C.D.A. as carried on by its Board of Governors.

One is also greatly impressed from year to year with the increasing respect with which our Secretary Dr. Gullett is listened to and consulted by the provincial Department of Health and Public Welfare. His evident sincerity and honesty and his grasp of the salient points if any subject under discussion in connection with public welfare is an inestimable asset to the Canadian Dental Association which he represents.

J. F. M.

Winnipeg Dental Association

The Winnipeg Dental Society had Dr. Edmund F. Lieb of Minneapolis as its guest clinician for afternoon and evening sessions on October 14. The meeting took place in the Fort Garry Hotel and was presided over by its new President Dr. Charles S. McLeod.

Dr. Lieb appeared at the June meeting of the Western Canada Dental Society held at Banff, Alberta. He made a fine impression there and again in Winnipeg. His ability as a radiologist and a diagnostician is unusual in a general practitioner. His methods of angulation are also unusual and comparatively simplified and his pictures demonstrate the success of his technique.

J. F. M.

ONTARIO

Post-Graduate Continuation Courses

During the week of September 15-20 another intensive one week course in Periodon-

tology was held. Those registered in the class came from Minneapolis, Cleveland, Rochester, Vancouver, Port Arthur and Toronto.

Many inquiries have been received from members of the dental profession concerning similar continuation courses contemplated for the future. These include requests for one day a week courses over an extended period, in Orthodontics, Root Surgery, Pedodontics and Periodontia.

Faculty of Dentistry, University of Toronto

Dental Faculty Bulletin on Normal Nutrition in Demand

An enquiry has been received from the Benson High School, Omaha, Nebraska; for a supply of the Normal Nutrition Bulletin put out by the Faculty.

It is found to be very useful in the teaching of good nutrition in the Biology Departments of High Schools.

Research Studies Among Indians and Eskimos

Dr. W. G. McIntosh accompanied a group of medical scientists to the coast of James Bay (August 15-September 1) and carried out periodontal studies among the Indians in the groups residing in that area.

Dr. R. J. S. Tickle returned to Aklavik, N.W.T., during July and August, and rendered service to the Eskimo and white inhabitants of that community.

Buffalo Dental Association Invitation

An invitation was extended by the Buffalo Dental Association to members of the staff of the Faculty of Dentistry, University of Toronto, to attend its monthly meeting on October 14, at the Statler Hotel, Buffalo. The speaker was Dr. J. Ben Robinson, Dean of the Baltimore College of Dental Surgery, who spoke on the subject "Continuing Problems in Dental Education".

Attendance at Summer Courses

Miss E. M. Bradley, B.A., B.L.S., Assistant Librarian, attended a summer course of six weeks' duration on Medical-Dental Library administration at Columbia University.

Dr. M. A. Cox, Professor of Preventive

Dentistry, attended the "Inservice Training Course for the Evaluation of Dental Caries Control Techniques" sponsored by the School of Public Health, of the University of Michigan, September 8-13, representing the Faculty of Dentistry, University of Toronto. The program included lectures given by renowned research workers in the field of caries control and dependent subjects, integrated with group discussions. Dr. Cox will present a report on the course at a Faculty Council meeting in the near future, and it is anticipated that in due course an official report of the conference will appear in print.

Extramural Lectures

The brochure listing the members of the staff available for extramural lectures, along with the titles of their subjects, is in urgent need of revision. Please forward material for inclusion in the new edition to the office of the Dean. New members of the staff are urged to prepare themselves for this important post-graduate service to the dental profession.

The following is a list of the lectures given during September:—

Sept. 6/47: Dr. R. E. Diprose, Northern Ontario Dental Association; Sept. 15/47: Dr. G. V. Fisk, Peterborough and District Dental Society; Sept. 16/17: Dr. M. A. Cox, Peterborough and District Dental Society.

The following Lectures were arranged for October:

Oct. 10/47: Dr. C. H. M. Williams, Niagara Peninsula Dental Association; Oct. 15/47: Dr. W. G. McIntosh, Bay of Quinte Dental Society; Oct. 22/47: Dr. F. L. Cole, Simcoe County Dental Society; Oct. 29/47: Dr. J. D. Purves, Grey-Bruce-Dufferin Dental Society.

Toronto and District Golf

The fall tournament of this association was held at Mississauga Golf and Country Club on October 1. It was a grand get-to-gether of dentists who play golf in and about Toronto and Hamilton. The attendance of 54 was a record, the course and weather were ideal, and the arrangements perfect for a good time. All players had a word of praise for the executive in charge, the personnel of which was—President, Dr. Cliff Mason, Hamilton; Vice

President, Dr. Harold Armstrong of Port Credit; Secretary Treasurer, Dr. Bill McEwen of "Hamilton and Past President, Dr. Lou Harris, Toronto.

Prize winners are as follows—

First flight, Low Gross: 1. Dr. "Mac" Gibson; 2. Dr. J. Evans.

Low Net: 1. Dr. R. Bennett; 2. Dr. Earl Jackson.

Second Flight, Low Gross: 1. Dr. Charles Hewitt; 2. Dr. C. W. Smythe.

Low Net: 1. Dr. Charles Lennox; 2. Dr. W. J. McEwen and Dr. H. Patzalek tie.

Low combined net score for spring and fall tournament Dr. Charles Wray.

New officers of the association for 1948 are:

President Dr. Harold Armstrong

Vice President Dr. W. J. McEwen

Secretary Treasurer Dr. J. Evans

2T3 Twenty-fifth Anniversary, May 17th, 1948, Royal York, Toronto

FIRST CALL!

How swiftly flow the years! A very hackneyed phrase I fear and doubtless an unnecessary reminder to all ye members of 2T3 who have long been keenly aware of the acceleration in the flow of those same years.

Let us pause in our daily routine and go back in memory to that September day in 1919 when from all parts of Canada we assembled at 240 College Street and entered on what at that time seemed like four long years of preparation for our life's work.

With the experience of army life to help us, we quickly became oriented and acquainted and were soon welded into a class that I believe it is conservative to say was unique in the history of dental education. Friendships were cemented and experiences enjoyed together that bring us happy memories today. Then came the day when the grand old gang was dispersed to the four winds, some to settle down immediately at the scene of their life's work, others to wander about for a time till they found a community that appreciated their services sufficiently well to provide baby with a new pair of shoes. Today we are scattered from England to California, from British Columbia to Florida. And, yes, a growing number are resting from their la-

hours on the other side. Their presence is sorely missed when groups of 2T3 assemble.

But to get back to the point of this article. I have been asked to remind you that come next May—and it comes fast—we celebrate the 25th anniversary of that day when we so hopefully set out to rid the world of dental disease—and make a million doing it.

Would it not be a grand event if all the remaining members of 2T3 could again assemble at the doorway of 240 College Street, swap yarns of the freshman lab, listen to certain members recount the glories of the R.C.R.'s and the P.P.'s, live again in memory experiences in the infirmary, and recount the sage advice—and stories—of Pop Switzer. Then to the punch bowl—easy now, don't push—there will be plenty for all, I hope. But wouldn't it really be something for us all to sit down together and while we are still able, have Dave McCord and Jock McLachlan lead us in a Whizz Bang that would make the Royal York rock on its foundations!

Surely there isn't one among us who wouldn't sincerely wish to be present at such a reunion and the one best way to get there is to ring the date on the calendar now and let nothing—no, not even a fishing trip (just this once)—deter you from your goal.

Personally, I'm looking forward to seeing Dick McDougall, Garf Johnston, Ray Wilson, Charlie Usher, and a host of others I haven't seen since '23 as well as the regulars who get together every year or so to keep the memories fresh.

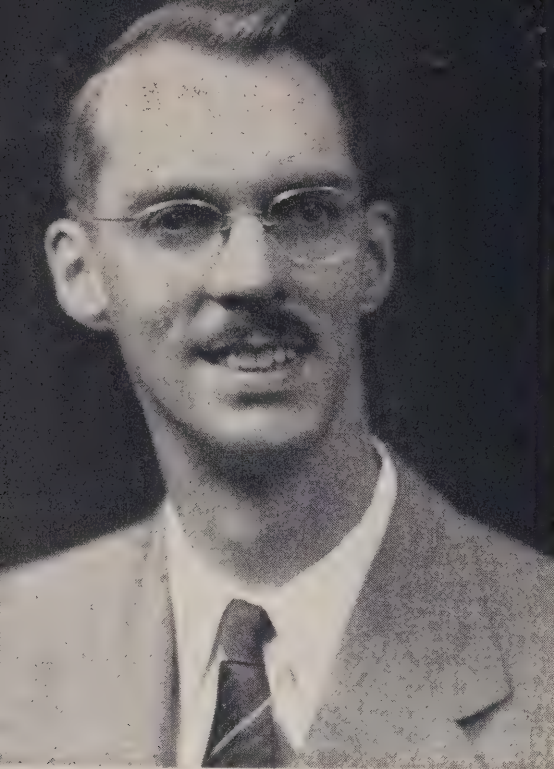
Your reunion committee is working up a program that will make it worth your while to come a long way. And if you are coming my way I sure would be happy to have a call from you. So I'll be seeing you in May.

PERCE ROSS.

15341 Livernois, Detroit 4, Michigan.

Peterborough Stages Health Week

Peterborough and District Public Dental Health Committee, with Dr. J. J. Craig as General Chairman, staged a health week campaign October 13 to 18. Municipal, industrial, professional and other groups participated in the undertaking designed to promote dental health, particularly of children, through the education of parents in the importance of dental care.



DR. H. J. TOTTON

President, Hamilton Dental Association

Ottawa Dental Association

During the past year the dental public health committee of this society have instituted a more concentrated program of dental health for the pupils of the primary schools of the city. The Red Cross Society have made a total contribution of \$6,000.00 to help finance the first year's program and to get the new service underway.

Dr. George Clark, a recent graduate in dental public health from the University of Toronto has been engaged to do health educational work and complete a dental survey of all primary school children.

Dr. Elwin McCartney is president of the Ottawa society and the personnel of the Dental Public Health Committee is Dr. Graham Hudson, chairman, with Drs. Harold Beach, Wes. Sheridan and Paul Coté.

Port Arthur Dentist Installed Officer of St. John's Ambulance Corps

Dr. Thomas Hutchison of Port Arthur was recently invested at Ottawa by the Governor General of Canada as an officer of St. John's Ambulance Corps.

Hamilton Dental Association

The opening meeting was held on October 15 and was addressed by Dr. Roy G. Ellis, Dean of the Faculty of Dentistry, University of Toronto. His subject was "The Aims and Hopes for the Future of Dental Education". Dr. H. J. Totton, President of the Society presided and at the conclusion of the meeting presented Dean Ellis with an honorary life membership.

The program of this society for the rest of the 1947-48 season is as follows:—

November 7—Dr. Victor L. Steffel, Professor of Prosthetics, Ohio State University.

Subject: "Removable Partial Dentures—Design and Function".

December 10—Dr. C. H. Moses, B.Sc. (Dent) of Toronto. Subject: "Impressions". "Articulation". "Immediate Dentures".

January 15—Dr. Ralph G. Peterson of Minneapolis, Minnesota. Subject: "Acute Infections of the Face and Jaw".

February 12—Dr. Edward Taylor, F.A.C.D., Director of Dental services for the State of Texas. Subject: "Dental Aspects of Fluorine in Texas and Elsewhere".

March 10—U.S.A. Navy Commander Leonard Johnson, D.D.S. Subject: "Acrylics in Anterior Bridgework".

The final meeting of the year will be arranged for sometime in April.

Academy of Dentistry, Toronto

The Annual dinner meeting of this society was held in the Royal York Hotel on October 20 with Dr. Harold Shepherd presiding. The guest speaker for the occasion was Senator Bouchard of St. Hyacinthe, Quebec, who made a strong plea for a united Canada. He intimated that often discordant voices were heard and sometimes they were loud but they are a negligible few. If Canada is to take her place among the nations she must be united and strong, pleaded the speaker.

Dr. Colton Bliss was presented with a past president's jewel by Dr. Harold Swales. Dr. Arnold Mason, dean emeritus of the Faculty of Dentistry, University of Toronto, was presented with an Honorary life membership in the Academy by Dr. Charles Corrigan on behalf of the members. In his presentation address Dr. Corrigan recounted his long friendship with Dr. Mason and recalled the years of service he has rendered his profession and

the contributions he has made. Dr. Howard Graham, who during the years of the Great War acted as chairman of the War Services Committee, was presented with a silver cigarette box suitably engraved. The presentation was made by Dr. Gordon Frawley who told how greatly the parcels and letters were appreciated by all who served overseas.

Dr. J. H. Johnson in his own inimitable style presented Mrs. Mason with a bouquet of roses. To Mrs. Boyes president of the Ladies' Auxiliary, Miss Tomye Turner president of the Dental Nurses' and Assistants' Association and Miss Marion Barton president of the Dental Nurses' Alumni, Dr. Johnson presented souvenir gifts to mark the occasion and recognize the assistance given the Academy by each of these ladies' groups.

• QUEBEC

Montreal Dental Club

At the September meeting of the club the guest speaker was P. G. Anderson, D.D.S., F.A.C.D., Professor of Operative Dentistry at the University of Toronto.

Dr. Anderson, who is certainly no stranger to the Montreal Dental Club, was most enthusiastically received personally, and his presentation on "Phases of Crown and Bridge-work" was a highlight.

With a series of beautifully coloured slides and black-board sketches, Dr. Anderson carried us from basic principles in bridge work right through to finished cases. He stressed the pin type inlay as being ideal for anterior bridges and for use in splint work, and showed his technique for splinting the six anterior teeth with this type of inlay in each tooth and carrying up to a total of eighteen pins all cast in one piece.

Montreal Endodontia Society

The opening meeting of this society for the 1947-48 season was held at the Medical building of McGill University on October 6, with Dr. Sydney Friedman, M.A., M.D.C.M., Ph.D., Assistant Professor of Anatomy at McGill University, as guest speaker.

Dr. Friedman's subject was "The Distribution of the 5th Cranial Nerve", and this he traced on both models and wet specimens,

stressing the necessity of complete knowledge of the nerve path if successful block anaesthesia was to be carried out. Reasons for some failures in anaesthesia were readily explained. The speaker pointed out how from an anatomical point of view the extra-oral method of nerve block should be a simpler and more direct and sure method than the intra-oral method, although the latter method is most commonly used by dentists.

Officers of the Society for the current year are as follows:

President: Dr. H. H. Pearson
Vice-President: Dr. S. A. MacSween
Sec.-Treas. Dr. H. M. Robichaud

Dr. J. S. Dohan Feted

On October 20 approximately one hundred graduates of McGill University, Dental Faculty, met to do honour to Dr. John Dohan on the occasion of his retirement as Professor of Prosthetic Dentistry. This took the form of a testimonial dinner held in the Officers Mess of the R.C.A.M.C.—R.C.D.C. Armoury under the chairmanship of Dr. A. W. McClelland, head of the Department of Orthodontia.

Toasts proposed during the dinner included: The King, by Dr. McClelland; Alma Mater by Dr. D. P. Mowry; Profession of Dentistry, by Dean Arthur L. Walsh of McGill and responded to by Dean Ernest Charron, Université de Montréal.

Numerous letters and telegrams of congratulations bearing good wishes received from all parts of Canada and the United States were read before the guests assembled and an engraved silver tray was presented to Dr. Dohan by Dr. O. A. Lefebvre on behalf of all present.

The toast to Dr. Dohan was proposed by Dr. A. S. Solomon who in a very eloquent manner paid a most fitting tribute to the honoured guest for his many contributions to dentistry both within and outside of the University. Dr. Dohan, who joined the teaching staff of McGill in 1908, in his reply feelingly expressed his thanks for the honour done him and related many of his experiences during his years of teaching and also warned against some possible danger spots to be encountered in the future.

Dr. Geo. S. Cameron, former Professor of

Prosthetic Dentistry at McGill closed off a happy evening with a resumé and the "Inside Story", of dental activities during recent years.

ALBERTA

Calgary Dental Society

The regular October Meeting of this Society was held Oct. 9 at the Palliser Hotel. Before more than 50 members of the Society Dr. J. K. Carver, of Montreal, President of the Canadian Dental Association, and Doctor Don Gullett, Secretary of the C.D.A., spoke on matters of general interest to the dentists of Canada. The speakers were introduced by Doctor C. M. Lowry, President of the Society. The addresses were interesting and were given close attention by all those present.

Dr. F. M. Murray, who has been Secretary of the Society, has taken up residence in Vancouver. His resignation, as Secretary, was accepted with great regret and with deep appreciation of his services.

Edmonton and District Dental Society

The opening meeting of the 1947-48 season of this Society was held in the Macdonald Hotel on Oct. 8.

Dr. J. K. Carver, of Montreal, President of the Canadian Dental Association and Dr. Don Gullett, Secretary were guests and spoke on "Current Problems of National Interest." They were introduced by Dr. R. A. Rooney, Past President of the Canadian Dental Association.

Dr. H. B. Ness of Camrose, the guest speaker who has recently returned from an extended trip to Europe presented a paper entitled "Free Dentistry for School Children in Norway," followed by Kodachrome transparencies of his trip. Dr. Ness was introduced by Dr. J. C. Ward.

Dr. J. G. Roberts, life member and first President of the Society in 1910 renewed acquaintances.

Dean Hamilton of the University of Alberta thanked Drs. Carver and Gullett for their instructive and informative addresses.

Dr. E. Jamieson, on behalf of the Society, expressed appreciation to Dr. Ness for his paper and pictures shown.

Dr. J. P. Kendal, President of the Edmonton Society, was chairman. He introduced the out of town visitors and welcomed new mem-

bers of the Society. There were 75 present including visitors from Red Deer, Lamont, Camrose and Wetaskiwin.

The following officers for the 1947-48 season were installed:

President: Dr. P. J. Kendal
Vice-President: Dr. G. E. Decker
Secretary: Dr. W. R. Stuart
Social Convener: Dr. H. Knight
Directors: Drs. G. Y. Barnett, W. B. Calhoun and J. C. Ward. G. F. BARNETT

Edmonton Dental Nurses' and Assistants' Association

The following officers were elected at the September 17 meeting of this Association:

President: Miss Martha MacAndrew
Vice-President: Miss Louise Mason
Secretary: Miss Doreen Adams
Treasurer: Miss Francis Shaw
Social Conveners: Misses Lou-Jane Wright and Gladys Rowsell.

Dr. P. J. Kendal, President of the Edmonton Dental Society, was guest speaker. He gave the girls a very interesting and instructive talk on the history of the dental nurse and her work in the office today.

DOREEN ADAMS, Sec.

NEW BRUNSWICK

New Brunswick Dental Society

The annual meeting of this Society was held in Fredericton on Sept. 14. This was a business meeting only, as the usual convention was waived this year in favour of the C.D.A. convention held at Digby last June. Dr. T. G. Manning, the president, was in the chair, and approximately one third of the dentists of the Province attended the meeting.

The report of the Registrar, Dr. S. K. Wetmore, showed there were 117 dentists on the roster of the Province with 103 of these in active practice. It was passed at the meeting to raise the annual grant to the C.D.A. from \$6.00 to \$8.00 per member.

The following officers were elected for the ensuing year:

President: Dr. Theo Godin—Campbellton
Vice-Pres.: Dr. L. F. Allanach—Moncton
Sec.-Treas.: Dr. S. K. Wetmore—Saint John
Members of the Council: Dr. J. P. Dowd,

Moncton; Dr. R. H. Bingham, Moncton; Dr. A. LeBlanc, Moncton; Dr. B. R. Ross, Fredericton; Dr. F. L. Miller, Fredericton; Dr. T. H. Lewis, Woodstock; Dr. E. R. McClintock, Centreville; Dr. K. G. Williamson, St. Stephen; Dr. R. S. Langstroth, Saint John; Dr. J. B. O'Brien, Saint John; Dr. J. F. Edgecombe, Saint John; Dr. F. C. Simms, Edmundston; Dr. G. G. McDougall, Sussex.

Dr. A. J. Coughlin, a past president and former secretary of the Society was elected to

replace Dr. Howard McDonald as the representative to the C.D.A. Dr. F. C. Bonnel, of Saint John, was elected to a new post of dental student councillor for New Brunswick. The members of the examining board elected were: Dr. O. J. Cormier and Dr. L. F. Allanach of Moncton and Dr. J. F. Edgecombe of Saint John.

After the meeting the members present enjoyed a chicken dinner at an out-of-town resort.

EMPIRE NEWS

GREAT BRITAIN

Inter-Professional Relationship Between Doctor and Dentist

At the Annual Representative Meeting of the British Medical Association the following rules were adopted as a guide to inter-professional relationships between doctor and dentist, in consultation with the British Dental Association:

(1) Where a patient, in the opinion of his medical attendant, needs simple dental treatment, the patient should be referred in all but exceptional circumstances to his own dentist. In the event of the patient having no regular dentist, there is no objection to a doctor recommending a dentist of his own choice.

(2) Where a doctor (for the benefit of one of his patients) requires to consult a dentist, the doctor should communicate, in the first instance, with the patient's own dentist. In the event of the patient having no regular dentist there is no objection to the doctor consulting the dentist of his own choice.

(3) Where, for any reason, the patient's doctor considers that the patient should be sent to a dentist other than his own, or where a further dental opinion is sought, the patient's usual dentist should be informed.

Note: Apart from a simple dental treat-

ment i.e., in the presence of a dental condition which might affect the general health of the patient or necessitate a major dental operation—the dentist should consult the patient's doctor before carrying out such treatment.

ANAESTHETICS

Where an anaesthetic is advised by the dentist, it is competent for him to select the anaesthetist, but if such anaesthetist is not the patient's doctor, no objection should be taken to the patient inviting his doctor to be present. Where the operation proposed is a major one, or if it is known to the dentist that the patient is under medical care, the dentist should consult the patient's doctor upon the operation proposed and should invite him to be present if the patient so desires. Similarly, where the patient is under dental care and the doctor advises operation or other major treatment arising from the patient's dental condition, the dentist should be consulted.

On the completion of any dental operation, and especially if there is any reason to think that post-operative complications may ensue, the patient should be advised to consult the dentist immediately if such complications arise and the dentist should take all reasonable steps to facilitate such consultation.

Advancing age needn't be feared. It brings its own satisfying compensations. These are the years for deepening ties of friendship, for study, for hobbies, for spreading the doctrine of dental health. Work, after all, is only a means to an end. Varied enriching experiences are ours for the taking.—JOHN W. GORDON in *Tic*.

"The great city is that which has the greatest man or woman."—Walt Whitman

GENERAL NEWS

World Medical Association

The World Health Organization, a subsidiary of the United Nations, is planning for a World Medical Association. The stated aims will be:

1. Promotion of closer ties between the doctors of the world.
2. Protection of the honour and rights of the medical profession.
3. Study of professional problems in different countries.
4. Exchange of technical information.
5. Formulation of medicine's viewpoint for the World Health Organization and other official bodies.
6. Assistance for all the world's people in attaining the highest possible level of health.

Dental Convention at Banff

Guest speaker at the recent Dental Convention at Banff was Dr. Harold Hillenbrand of Chicago, general secretary of the American Dental Association and former editor of the A.D.A. Journal.

Speaking on "Dentistry as a Health Profession" Dr. Hillenbrand predicted that "dental research can eventually eliminate dental caries," but added that "research must be accompanied by individual efforts" and also that "we can't educate or research a dental cavity out of existence". Introducing some startling statistics proving that about one half of the people of this continent do not brush their teeth, he pointed out that because the disease of dental caries attacks universally and consistently there must be greater dental health education of the public.

"It is the duty of the dentists" declared Dr. Hillenbrand "to provide leadership in providing dental care of more and more of the people". He stated that as an aftermath of war there is a new social conscience about health, but the dentist has a responsibility not only to society but to other dentists and to himself.

"The profession progresses," he concluded, "only as the individual progresses, and the individual progresses through interchange of ideas and sustained discussion of all interests involved".

The convention at Banff was the biennial meeting of the Western Canada Dental Society

and the British Columbia Dental Association, headed by Dr. V. M. Lloyd, of Edmonton, and Dr. J. A. Chambers, New Westminster.

A wide range of clinic material, movies, and essays was presented by individuals and study clubs of both groups. The Winnipeg Study Clubs, the Faculty of Dentistry of the University of Alberta, and members from British Columbia presented material covering every phase of dentistry.

On the program also were visiting dentists from Oregon, Seattle, Chicago, and Ann Arbor.

In attendance were 373 dentists. Dr. A. J. Garesche of Victoria, B.C., eighty-seven years young was the oldest dentist present, while Dr. G. Ingham, who flew his plane up from Amarillo, Texas came the greatest distance.

For the visiting ladies there was a splendid program of golf, luncheons, scenic drives, teas, and dancing, arranged by Mrs. V. M. Lloyd and Mrs. J. G. Pullar.

The enjoyment of the excellent scientific material was possibly enhanced by the unforgettable, and in the words of Dr. Hillenbrand "enchantingly lovely" atmosphere of Banff.

MAUDE SPENCE HOLWAY,
Seattle, Washington,

Increased Dues for A.D.A.

After several days of deliberation, with due consideration of rising costs and expanding activities of the American Dental Association, the House of Delegates voted to increase the annual membership dues from \$6 to \$12. If this vote is sustained by the House at its next annual session, the increase in dues will become effective January 1, 1949.

In view of present inflationary trends most members will understand the need for action. If the objectors were aware of the dues paid by members of other national organizations, particularly in the crafts, they might change their point of view.

A professional organization such as the American Dental Association, by its very nature, has a much larger job to do than similar organizations in the crafts and trades. This larger job arises out of the fact that the prime duty of a professional organization is to advance the welfare of the public and, secondar-

ily, to advance the welfare of individual members so that they may serve the public more effectively.

The Association is faced with the same post-war economic problem that confronts all organizations and all individuals. Since 1939 the cost of living has increased 57 per cent. This rise is reflected in the operating cost of the Association. In addition, the prices of certain commodities and services, basic to the activities of the Association, have increased more than 100 per cent. However, inflation is not entirely responsible for the increase in the cost of operation of the Association. The Association has expanded its services to members. These additional services are beneficial, yet they add to the expenditures.

In order to obtain a balanced budget, the House of Delegates is faced with two alternatives. It can increase the membership dues sufficiently to enable the Association to finance its expanding activities, or it can limit the services rendered. It would be unwise to curtail the services as the Association is confronted with many issues important to the profession. Therefore, the final solution to the financial problem of the Association lies in a judicious increase in dues.—From Editorial in *Jour. of the A.D.A.*, October 15, 1947.

Council on Dental Therapeutics of the A.D.A. Announces New Policy on Dentifrices

The recent recommendation of the Council on Dental Therapeutics with respect to dentifrices was approved by the House of Delegates of the A.D.A. at the Boston meeting.

Under this new ruling acceptance will be granted by the Council on Dental Therapeutics only to those dentifrices with demonstrated therapeutic properties. This decision automatically divides dentifrices into two categories: cleansing or cosmetic dentifrices, which merely aid the toothbrush in keeping the mouth clean, and therapeutic dentifrices, for which the manufacturer claims certain medicinal or curative properties. In the future, dentifrices will be considered and evaluated in accordance with their influence on public health.

The new program of the Council on Dental Therapeutics will enable the profession to differentiate between cosmetic and therapeutic dentifrices for the first time.

U.S.A. Army Engineers to Build Greatest Medical Centre

What is planned to be the greatest medical research centre in the world will be built at Forest Glen, Maryland, by the Corps of Engineers for the Office of the Surgeon General, according to a recent announcement. The initial cost is estimated at approximately \$40,000,000.

Officially designated as the "Army Medical Research and Graduate Teaching Centre", the project will consist of a 1,000-bed general hospital, capable of expansion to 1,500 beds; the Army Institute of Pathology building; the Army Medical Museum and Centre Administration building; Central Laboratory Group buildings; and the Army Institute of Medicine and Surgery. A working library, animal farm, quarters for the staff and other buildings are included in the plans.

Dental Health Program

The Council on Dental Health of the American Dental Association has recently published a new booklet entitled "Dental Health Program for Elementary and Secondary Schools" which is intended primarily to assist dental societies, health workers and school administrators in the establishment of effective dental health programs for school children. This manual was developed to meet a very large demand for information and advice on this subject. The material in the booklet was prepared by the Council after consultation with a number of nationally recognized authorities in the fields of health and education.

Sample copies may be obtained free of charge. Orders in quantity lots may be obtained at the rate of 15c per copy.

Tuberculosis in Berlin

Pressing problems from the public health point of view are tuberculosis, venereal diseases, and diphtheria (at the moment adult diphtheria). Unless the increasing incidence of tuberculosis can be brought to a standstill the outlook for Berlin, and indeed for Germany and even for Europe, in the next ten years is going to be serious. There are in Berlin 70,000 cases of tuberculosis of which between 20,000 and 30,000 are active and infectious.

IN MEMORIAM

Sir Norman Godfrey Bennett, M.A., M.B., B.Ch., L.R.C.P. Lond., M.R.C.S.Eng., of London, England, aged 77, died in September. He was a scientist, statesman and teacher and, in his death, the British Dental Association has lost one of its most outstanding figures.

He presided at the First Empire Dental Conference held in London in 1930, at which meeting Canada was represented. As a chairman he was unsurpassed, a master of procedure and always in full control of the situation.

The Jubilee Meeting of the British Dental Association was held also at this same time and in the last issue of the British Dental Journal the Editor states that Sir Norman's epitaph might well be the closing words of his Presidential Address at this Jubilee Meeting.

"It is for us to keep the torch burning for as long as we may and then hand it on. If we have done our best we need not be envious that those who succeed us will probably do better. Each generation has its ideals and its opportunities. Attainment and fulfilment are impossible. It is the effort that counts and if we have really tried we cannot utterly have failed."

Frederick Hamilton Bradley, Sherbrooke, Quebec, aged 73, died September 15. He was graduated from McGill University and at the outbreak of the First World War, assisted in organizing the Canadian Dental Corps. Later he was given charge of Military District Number Four and Five with the rank of Lieutenant-Colonel. His services were recognized by McGill University in awarding him the degree of Doctor of Dental Surgery in 1919.

He was Mayor of Sherbrooke in 1934 and 1935 and also represented North Ward in the City Council for many years. Dr. Bradley was for many years a member of the Protestant School Board; one of the promoters and a past president of the Metropolitan Amateur Athletic Club; a member of the Lacrosse Club in the days when it was a ranking club in Canada; a member of the Sherbrooke Riding

and Driving Club; a director of the Eastern Townships Agricultural Association and a member of E.T.A.A. Horse Show Committee.

He also belonged to the Sherbrooke Country Club, the Sherbrooke Rotary Club, the Sherbrooke Y.M.C.A., St. George's Club, and was an honorary member and past president of the Sherbrooke Snow Shoe Club. For many years he was a member of the Montreal Dental Club and a regular attendant at its meetings. He retired from active practice in 1944.

Dr. Bradley is survived by his widow, three daughters, two sons, one brother and nine grandchildren.

Herbert Arnold McClean, of Mimico, Ontario, aged 54, died October 1. He was graduated from the Royal College of Dental Surgeons of Ontario in 1915 and practised for seven years in Milton.

Moving to Toronto in 1922, he established a practice and later moved to Mimico. In 1941 he entered active service with the Canadian Dental Corps and later was appointed command dental officer at Halifax and subsequently at Vancouver, receiving the rank of lieutenant-colonel. Following his discharge in 1945, he resumed his practice in Mimico.

He was a member of the Toronto Dental Academy and Dental Alumni Association. He was an active member of Christ Anglican Church, Mimico, the organizer and former teacher of a Boys' Bible Class, one time superintendent of the Sunday School, and people's warden.

Dr. McClean is survived by his widow, a daughter, and a brother.

Luther Hamilton Stilwell, of Montreal, Quebec, died September 25.

He was graduated from McGill University in 1929 and practised in Montreal since that time after three years as interne in the Royal Victoria Hospital.

He served in the Medical Corps from 1916 to 1919.

He was a member of the Kappa Alpha Fraternity and the Montreal Dental Club.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

NOVEMBRE

NO 11

Pourquoi, comment et quand les gingivites de nature hypertrophiante peuvent être soignées avec succès.

JULES THEBAUD, D.D.S., M.Sc.D., LL.L., L.Sc.P., F.I.C.D.,
A.I.D.C., F.A.P.H.A., LL.D., (h.c.), Montréal.

L'étude clinique de certaines formes de gingivo-stomatites spécifiques présente moins d'intérêt, au point de vue du diagnostic différentiel à établir, que celle des gingivites hypertrophiantes dans leur période évolutive. J'entends par là que l'allure clinique de la gingivite de Vincent et celle de la stomatite catarrhale, par exemple, présente un aspect tellement particulier, à chacune de ces infections, qu'il est rare qu'on n'arrive facilement à les différencier les unes des autres. Tandis que les gingivites hypertrophiantes comprennent dans une même classification *toute une série de gingivites d'un aspect clinique presque identique*. C'est la présence de bourrelets tuméfiés, c'est la couleur rouge vif, c'est la densité flasque et ce sont les petites hémorragies répétées, qui caractérisent les traits communs de ces gingivites.

Nous disons bien, gingivites hypertrophiantes, car il s'agit là d'une augmentation, en volume et en proportion, de certains éléments cellulaires, que renferme la muqueuse gingivale. Nous établissons la différence, dès le début, afin d'éviter toute équivoque avec l'hyperplasie gingivale, qui s'apparente avec la gingivite hypertrophiante dans son aspect; mais non au point de vue étiologique, car leur structure histologique et leur nature pathologique sont bien différentes, surtout quand il s'agit d'épulis fibromateux ou d'éléphantiasis gingival.

Nous sommes tous familiers avec la forme la plus courante de gingivite hyper-

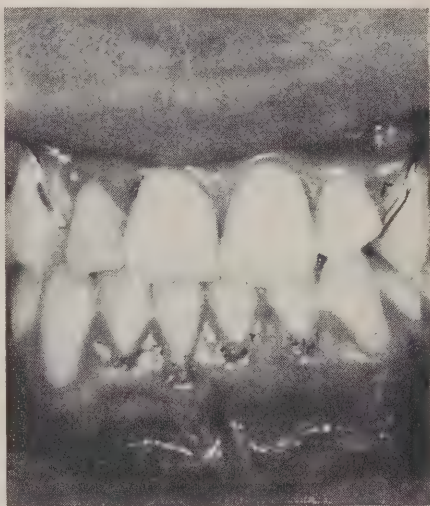


Figure 1.—Gingivite marginale causée par le tartre.

trophiante, celle qui se limite parfois aux dents postérieures ou simplement aux dents antérieures, ou qui se généralise à toute la gencive. Le degré d'hypertrophie correspond à l'intensité des causes qui la déclenchent et l'entretiennent. Ce type de gingivite courante déterminée soit par les défauts mécaniques, soit par les calculs salivaires, ou par l'action toxique

des micro-organismes s'étend ordinairement au fin pourtour de la gencive. C'est pourquoi elle est souvent désignée sous le nom de *Gingivite Marginale*. (figure 1)

Elles sont d'ailleurs toutes des causes locales que l'on découvre, pour peu qu'on se donne la peine de bien examiner la bouche. Ce sont, par exemple, le tartre salivaire, la malposition des dents, la respiration buccale accompagnée d'une articulation béante, le manque de contact proximal, le manque d'hygiène buccale, et la mauvaise adaptation des obturations ou des pièces de prothèse. Tous ces facteurs, qui entretiennent l'irritation, cèdent assez facilement à la suite de l'intervention du dentiste.

Dans le cas d'un état de mal-hygiène, par exemple, les calculs salivaires et les plaques muqueuses facilitent et activent la décomposition des débris alimentaires qui se déposent au collet des dents. A cette irritation permanente, qui tend à envahir le sillon gingival normal, s'ajoute

l'action des micro-organismes et de leurs toxines. Ce contact pathologique entraîne la désorganisation de l'épithélium, par endroits, à cause de l'émigration massive des leucocytes et de la pénétration des germes pathogènes ou de leurs toxines à travers ce tissu. (figure 2) L'épithélium serait donc en dégénérescence continue du fait du passage constant des leucocytes entre les cellules qui la composent ou par manque de nutrition, en raison des troubles inflammatoires siégeant dans les tissus conjonctifs sous-jacents. Dans les papilles et les bourrelets gingivaux, il se produit une infiltration considérable des éléments du plasma et des leucocytes. Les fibroblastes, en second lieu, viennent se mêler à ce mouvement de défense, augmentant ainsi, la texture fibreuse du tissu gingival; tandis qu'aux points d'invasion des germes, il se produit des troubles capillaires et lymphatiques, qui entretiennent la transudation si caractéristique de l'inflammation gingivale, en plus de l'hémorragie, qui résulte de la rupture

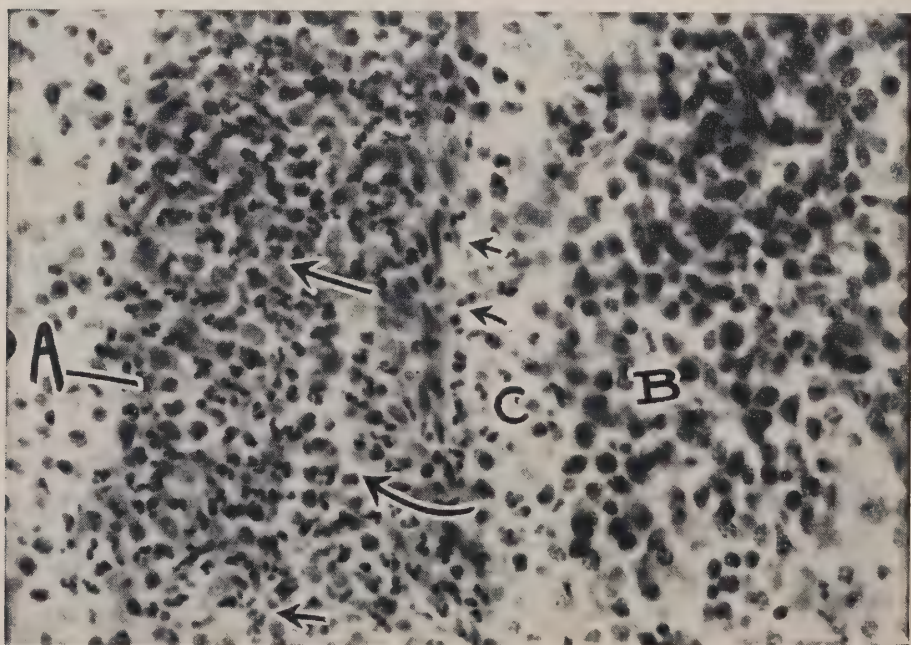


Figure 2.—L'épithélium est envahi par les leucocytes (a). Les tissus conjonctifs sous-jacents sont envahis à leur tour par les cellules rondes (b) du plasma. Les leucocytes en voie d'émigration se trouvent en grande quantité dans la zone, (c) limitrophe à l'épithélium.—(de E. B. Orban).

des vaisseaux dans un tel terrain: (figure 3)

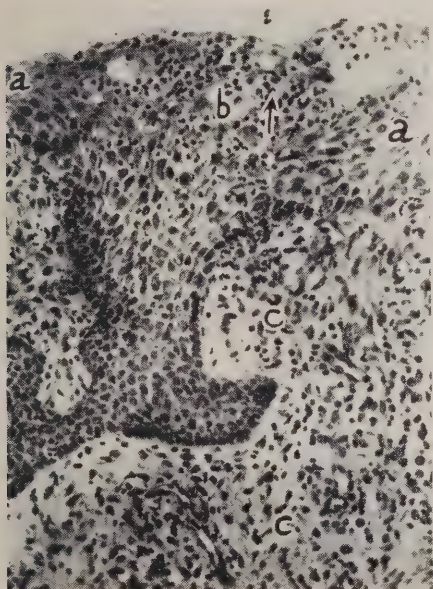


Figure 3.—Mécanisme pathophysiologique des leucocytes (b) émigrant à travers les cellules épithéliales (a). Tandis la prolifération des cellules rondes du plasma se fait au sein du tissu conjonctif sous-jacent. (de B. Orban).

Au cours des poussées inflammatoires, les troubles vaso-moteurs, spécialement dans les papilles interdentaires, donnent un caractère hypertonique ou hypotonique à la réaction de la gencive. Le plus souvent, c'est l'hypertonie que nous observons dans ces papilles hyperémiées, et boursoufflées; ce qui fort heureusement se caractérise par une grande activité fonctionnelle très significative, d'une tendance favorable au processus de guérison si l'on intervient à temps.

Gingivite à étiologie locale ou gingivite marginale

C'est cette hypertrophie des gencives, qui s'observe si souvent chez les adolescents privés d'hygiène buccale, chez qui la respiration par la bouche, pendant le sommeil, entraîne (figure 4) le dessèchement de la muqueuse; c'est cette même gingivite tartrique, si commune chez les

adultes, d'une certaine condition sociale; c'est cette gingivite hypertrophiante, qui est si réfractaire au traitement de courte durée; c'est elle, ordinairement, qu'on croit pouvoir traiter au moyen de quelques attouchements à la teinture d'iode ou avec certains astringents, sans l'élimination radicale de tous les facteurs qui l'entretiennent. Cette forme de gingivite dont l'étiologie est purement locale, se rencontre dans presque la majorité des cas, soit dans 70% des cas d'hypertrophie gingivale. (figure 1)



Figure 4.—Respiration buccale et occlusion béante: gingivite hypertrophiante chez une patiente, âgée de 14 ans.

Dans les autres circonstances, il s'agit de gingivites hypertrophiantes déterminées par des causes organiques prédisposantes, mais dans lesquelles l'irritation locale sert quand même d'amorce. Comme nous le répétons, l'aspect clinique de ces catégories d'hypertrophie gingivale est d'aspect identique à la forme, que nous venons de décrire. Et c'est précisément ce qui entraîne des erreurs de diagnostic, et conséquemment, des erreurs thérapeutiques. Ces gingivites hypertrophiantes s'observent 1) chez les femmes enceintes, 2) chez les diabétiques, 3) chez les scorbutiques et 4) chez ceux qui sont atteints d'anémie profonde ou de leucémie.

Si l'on admet que la muqueuse buccale peut être le siège des manifestations de près d'une centaine d'affections consti-

tionnelles, parmi lesquelles on compte la thyphoïde, la scarlatine, la variole, la tuberculose, etc., on admettra aussi les données actuelles, qui soulignent la répercussion directe de la malfonction de certaines glandes endocrines sur l'équilibre physiologique des tissus gingivaux.

Si l'on admet aussi que les malpositions dentaires sont fréquentes dans l'hypothyroïdisme infantile, à cause du manque de contact des dents dans un maxillaire trop développé, on admettra, à plus forte raison, que la muqueuse buccale est susceptible d'enregistrer les changements qui se produisent à l'occasion des écarts produits dans la sécrétion de certaines hormones. Ces troubles endocriniens sont parfois marqués par une telle déficience glandulaire, comme dans le cas du diabète pancréatique, qu'ils se manifestent sous la forme d'un ébranlement physiologique qu'on pourrait considérer comme des "périodes de commotion."

Gingivites des femmes enceintes

Dans la grossesse, il se produit, paraît-il, une élimination d'une hormone au niveau du chorion placentaire; cette sécrétion hormonale n'aurait pas simplement un effet irritant sur la muqueuse buccale, mais elle affaiblirait et désorganiserait l'épithélium qui la recouvre dans les points les plus exposés à l'irritation, tel qu'à la surface des papilles interstitielles ou dans le repli même de la gencive.

Zinski, pour donner plus de poids à ses observations, est arrivé à produire, à volonté, une forme de gingivite, qui se rapproche beaucoup de celle que nous décrivons ici, en injectant à des singes un extrait provenant des urines des femelles à l'état de grossesse. D'autre part, il est parvenu à ralentir et à contrôler l'évolution de cette gingivite en appliquant localement sur la gencive un extrait d'hormone ovarienne.

C'est ce qui l'a porté à adopter, à titre d'essai, une thérapeutique basée sur ces expériences. Il a obtenu de grandes améliorations dans les cas de gingivite chez les personnes souffrant de troubles gynécologiques, en appliquant sur la gencive un onguent à base d'estrogène, à raison

de 2 milligrammes, pendant une vingtaine de séances.

La gingivite hypertrophiante qui s'observe vers le 3ème ou le 4ème mois de la grossesse est bien le prototype des modifications cellulaires, qui se produit à la zone marginale de la gencive sous l'action prédisposante de facteurs endogènes connus.

On stipule à peu près que 50% des femmes enceintes échappent à ces troubles, tandis que 40% peuvent présenter une légère gingivite, et 10% sont porteuses d'une gingivite hypertrophiante très accusée.

Parmi celles là, il est à croire que certaines causes locales, tel que l'état de malhygiène, la présence de tartre salivaire et la malocclusion entraînent conséquemment une hypertrophie plus marquée.

L'aspect clinique est classique; parfois une ou deux papilles prennent les proportions d'un épulis, mais dans la plupart des cas, toutes les papilles sont tuméfiées, et saignent facilement sous le simple effet de la mastication ou de la succion.

Au point de vue histopathologique, ce qui frappe surtout, c'est l'abondance des cellules rondes du plasma et la multitude des leucocytes, qui émigrent à travers un épithélium extrêmement aminci, à cellules dissociées et à peine kératinisées. Dans certains cas, la nouvelle déposition de fibres conjonctives, au sein des papilles interdentaires, prend une telle importance que même, si la gingivite n'est plus à sa phase de paroxysme, un certain degré d'excroissance gingivale persiste quand même; cela indique jusqu'à quel point cette gingivite demeure réfractaire au traitement.

A peu près dans le même ordre, on pourrait classer les désordres hypertrophiques d'un aspect moins marqué qui se produit à l'époque de la puberté chez les jeunes filles et aussi parmi les adultes qui souffrent de troubles menstruels, même quand la bouche se trouve dans un excellent état d'hygiène.

L'hypo-ovarisme ou l'hyper-ovarisme semble être responsable de ces changements au niveau de la muqueuse buccale. Même la ménopause ferait partie du ta-

bleau étiologique, ce qui permet de conclure que les troubles gynécologiques très marqués agissent à la longue et à la manière de "commotions physiologiques" sur l'épithélium qui recouvre plus particulièrement les papilles.

Les biopsies pratiquées dans ces cas montrent le même désordre cellulaire observé chez les femmes enceintes, et l'hypertrophie, dans ces cas, est aussi tenace.

Gingivite des diabétiques

L'effet du diabète sur les tissus de support de la dent est très controversé. Plusieurs refusent d'admettre une corrélation étroite entre le diabète et les lésions parodontaires, parce que, chez les personnes atteintes de pyorrhée et de gingivite, il n'y avait pas de sucre dans le sang; mais dans l'autre cas, on a trouvé que dans une assez grande proportion, les diabétiques étaient atteints de pyorrhée alvéolaire et de gingivite.

Cette dernière observation nous porte à confirmer la règle. L'hypercholestéremie si souvent observée dans le diabète mellitus a porté Gershef à faire des expériences assez concluantes, au cours desquelles, l'examen des tissus parodontaires lui a révélé la présence de granules adipeuses. D'autres ont trouvé que dans la membrane périodentaire, la teneur du plasma sanguin en sucre était égale à celle du plasma dans la circulation générale.

Quand il y a gingivite chez le diabétique, les tissus gingivaux prennent presque toujours une apparence rouge violacée, une densité flasque et, ce qui est encore plus caractéristique, il y a présence d'un exudat sirupeux, qui n'est pas pourtant un pus bien lié.

L'hypertrophie, dans ce cas, est non seulement localisée dans les papilles interdentaires, comme dans les deux catégories susmentionnées, mais aussi dans les bourrelets marginaux et elle est d'une nature aussi tenace, vis-à-vis des traitements de courte durée. Les améliorations s'observent cependant peu après les périodes de traitement des malades à l'insuline. Il est à remarquer cependant que les injections locales d'insuline sont sans effet en pareil cas.

Gingivite des scorbutiques

La malnutrition, qui entraîne à la longue l'affaiblissement des tissus parodontaires profonds, laisse soupçonner l'action novice du scorbut sur les mêmes éléments du périodentium, particulièrement sur la gencive. Mais en dehors du scorbut classiquement bien défini et très ponctué au point de vue clinique, il existe une forme latente de scorbut rampant, à peine soupçonné, chez ceux-là qui, par ignorance de l'hygiène alimentaire ou par manque de moyens pécuniaires, se trouvent constamment en sous-nutrition.

Chez ces individus, un examen du sang révèle facilement une déficience en acide ascorbutique. Les gencives, bien que d'apparence anémique à leur base, laissent voir cependant des papilles légèrement tuméfiées, dont l'envers, c'est-à-dire le repli gingival, saigne profusément et d'une façon spontanée. Les papilles interstitielles, malgré l'apparence anémique des autres parties de la gencive, doivent leur état hypérémique à la transudation qui s'opère dans les capillaires. L'étude microscopique des capillaires a révélé qu'il existe chez les scorbutiques une trop grande perméabilité et trop peu de régularité dans la configuration des anses et des projections capillaires. (figure 5)

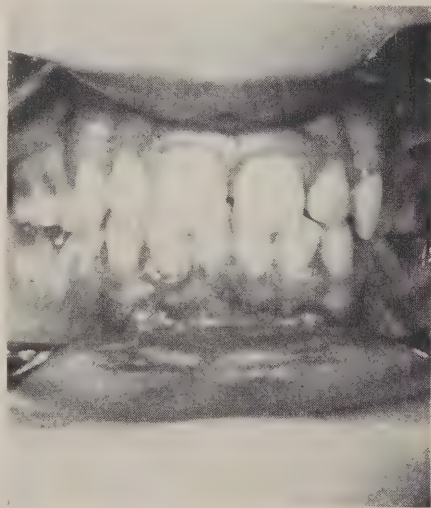


Figure 5.—Gingivite chez un patient en sous-nutrition (forme rampante de scorbut).

Gingivite accompagnant les troubles cardiaques et cachectiques

Dans le même ordre, il convient de citer la forme de gingivite hypertrophiante que l'on remarque surtout dans les salles d'hôpitaux, chez les malades qui ont les papilles interdentaires franchement oedémateuses, d'un rouge violacé et d'une apparence sale, à cause de la desquamation qui se produit par zones; c'est celle que l'on rencontre chez les malades atteints de cachexie, d'empoisonnement, d'anémie pernicieuse ou de leucémie.

Si l'on admet aujourd'hui, l'action des réflexes psychiques sur les vaso-moteurs pour expliquer que la frayeur peut faire transpirer, que la crainte peut faire palir, que la honte peut faire rougir et que les chagrins profonds peuvent entraîner une dépression physiologique, l'on admettra aussi comme évident ou possible, l'effet de la sympathicotomie sur le pouvoir de défense des tissus gingivaux, et la susceptibilité de ces tissus à subir un déséquilibre physiologique au cours des troubles pulmonaires et cardiaques; et à plus forte raison, on comprendra l'état de moindre résistance des éléments péri-dentaires, quand la chimie sanguine même se trouve modifiée.

Forme fibreuse et hyperplasie (une 6ème forme)

Depuis qu'on emploie le diphénylhydantoinate de sodium (dilantine de sodium) dans le traitement de l'épilepsie, on a eu l'occasion de remarquer que dans une large proportion, soit dans 60% des cas, il se produit une excroissance très marquée des gencives, qui contrairement aux autres types de gingivite, que nous venons de décrire, présente une tonalité ferme, rigide, ne saignant pas facilement, à la succion, ni à la pression.

La biopsie révèle ordinairement un terrain hyperplasique, une prolifération intense des fibres conjonctives, sans l'état oedémateux, qui est si caractéristique dans les autres formes d'hypertrophie. L'emploi abusif des barbiturates, soit avec le dilantine de sodium, soit séparément, semble favoriser cette excroissance gingivale, mais dans une moindre mesure.

Ball et Orban ont observé et analysé

des cas d'hyperplasie gingivale, dans lesquels, la prolifération des éléments fibreux étaient si marquée, qu'ils ont conclu à l'existence de l'éléphantiasis gingival. Il va sans dire que ces deux derniers types d'hyperplasie fermes et non douloureux sont difficiles à soigner.

Caractères généraux des gingivites hypertrophiantes

Toutes ces formes de gingivite hypertrophiante peuvent être soignées malgré leur nature, mais il convient de déceler, à point nommé, les facteurs endogènes qui les alimentent.

Leur apparence identique au point de vue clinique porte à la confusion. Et ces gingivites sont les plus courantes, car ce sont elles, que les patients découvrent eux-mêmes avec stupéfaction, à cause de leur nature hémorragique et de leur aspect inesthétique. Elles sont les plus tenaces, parce qu'elles sont aptes à la récurrence et, cependant, elles constituent le groupe des affections buccales qui est, la plupart du temps, négligé par les membres de notre profession. Ce sont elles aussi, qui sont le plus souvent considérées comme des inflammations banales, et ce sont ces mêmes gingivites aussi qu'on identifie avec la pyorrhée alvéolaire, et qui, au lieu d'être traitées d'une façon adéquate, fournissent un prétexte pour l'extraction totale des dents.

Causes d'insuccès

Les gingivites, entretenues par des facteurs fonctionnels, sont plus difficiles à soigner que les gingivo-stomatites de nature toxique causées par l'ingestion de certains sels métalliques ou même la gingivite de Vincent; et c'est ce caractère opiniâtre, dû à la persistance de l'état inflammatoire chronique dans les papilles interdentaires qui les rend si promptes à la récurrence. D'où le peu d'intérêt et le découragement de la part de certains professionnels, qui préfèrent recourir à l'extraction massive des dents, dans une infinité de cas.

Mais les erreurs de thérapeutique, que l'on relève dans le traitement des gingivites hypertrophiantes, sont principalement dues aux causes suivantes:

1) Le diagnostic, qui est posé trop hâtivement, ne permet pas de déceler laquelle des six formes décrites se trouve dans sa forme évolutive.

2) Trop de cliniciens, par manque d'entraînement, n'accordent pas suffisamment d'importance aux désordres biologiques et au caractère opiniâtre de ces gingivites, comme il convient de le faire dès le début. D'autres ont tendance à exagérer le pronostic qui découle de ces affections et les confondent avec la pyorrhée alvéolaire, si tôt qu'elles prennent une allure aggravante.

3) Certains opérateurs, attachant plus d'intérêt aux travaux de dentisterie opératoire et de prothèse, considèrent, comme banales, ces premières manifestations des affections péri-dentaires.

4) Parfois, on n'accorde pas le temps nécessaire à repérer au cours de l'examen des cas, l'influence prédisposante des facteurs organiques qui concourent à l'entretien du mal. On néglige même d'obtenir certains renseignements utiles, du médecin traitant.

5) On ne prend ni le temps ni la patience nécessaires pour suivre ou attendre la réaction des tissus pendant le processus de guérison ou de cicatrisation.

6) Et pour un dernier groupe de professionnels, ces gingivites, qui s'identifient avec les maux incurables, doivent entraîner pour le patient, et ceci est fatal, l'extraction de toutes les dents situées dans les zones hypertrophiées.

Le débutant qui ignore, par manque d'entraînement, la nature tenace de toutes les gingivites hypertrophiantes, se limite parfois à un détartrage superficiel suivi de quelques copieuses applications de teinture d'iode ou de certains médicaments fortement caustiques ou astringents. Le chlorure de zinc à 40%, l'iode de potassium, l'acide carbolique et les nombreuses "spécialités" recommandées par les droguistes constituent trop souvent leur principal arsenal pharmaceutique.

Ce qui se passe à l'intérieur des gencives inflammées

La plupart du temps, c'est l'aspect biologique de la question qui ne reçoit pas assez de considération.

Le passage de l'état inflammatoire aigu à l'état inflammatoire chronique s'accomplit avec si peu de démarcation que ni le patient et ni l'opérateur n'en aperçoivent les manifestations extérieures.

On attache plus d'importance au facteur temps, pour peu qu'on se rappelle la tendance facile de l'inflammation à s'étendre en profondeur dans n'importe laquelle de ces gingivites simples. Quand ce sont des facteurs purement locaux, qui persistent, quand après la délivrance chez les parturiantes, l'hypertrophie persiste avec le même cortège d'irritation; quand la bouche du diabétique, celle du patient atteint de scorbut "rampant" et celle du cachectique ne sont pas bien entretenues, le tableau suivant constitue la forme classique du processus pathologique en progression: l'inflammation est toujours active dans le clapier gingival, à cause des brèches qui existent dans l'épithélium, tandis que la pénétration des micro-organismes et de leurs toxines, amène l'envahissement du terrain superficiel par des leucocytes et de la partie profonde par des cellules du plasma. D'autre part l'infiltration se fait en profondeur par les capillaires lymphatiques vers les travées osseuses et la membrane péri-dentaire. Ce mouvement de défense contre des zones d'irritation situées, non pas au sein du tissu conjonctif, mais plutôt en dehors, dans le sillon gingival, demande un plus grand effort, un déploiement de force plus considérable dans ce mouvement de défense vers l'extérieur, ce qui conséquemment aggrave le désordre parmi les éléments fixes des tissus gingivaux. (figure 6)

L'engorgement des capillaires, rendus alors perméables, entretient, par la transudation d'un fluide fibrineux et des globules rouges et blancs, un état oedémateux qui ne s'éliminera jamais tout seul, et c'est cet exudat de nature protéique, chargé de leucocytes, qui servent même d'appât aux germes pathogènes, parmi lesquels domine le Streptocoque Viridans, qui aide à former un liquide sirupeux ou une sécrétion purulente, blanche et mal liée.

C'est une affaire de temps, de mois ou d'années, si on laisse agir avec toute leur

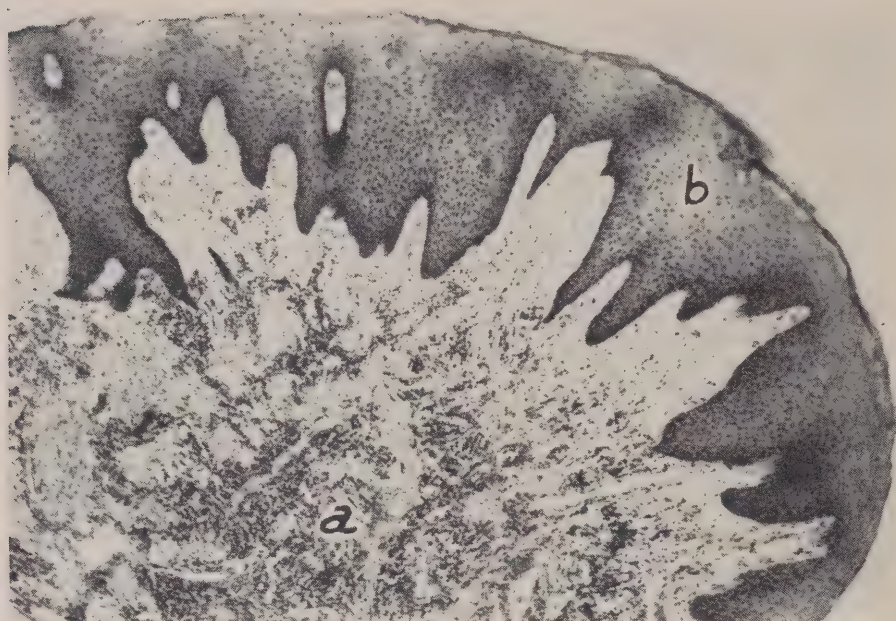


Figure 6.—Portion de la gencive, siège de l'inflammation chronique. Le tissu conjonctif est envahi par les petites cellules rondes du plasma (a) tandis que l'épithélium (b) subit des modifications dans la forme régulière des projections basales. (de B. Orban).

intensité les facteurs locaux et les causes fonctionnelles, qui entretiennent la marche du processus de dégénérescence. Fatalement, si l'on n'intervient pas à temps, l'oedème dans l'hypertrophie gingivale entraînera toujours la formation de faux clapiers. Ce qui constitue un point de repère important tant au point de vue du diagnostic, qu'au point de vue de la thérapeutique spéciale à adopter.

Pour un meilleur traitement de toutes les formes de gingivite

Pour prévenir les poussées évolutives de l'affection ou même pour l'arrêter, il est recommandé d'établir une thérapeutique presque spécifique à chaque fois qu'on arrive à identifier l'une des six formes de gingivites, que vous venons de décrire.

1.—La forme la plus courante s'améliore ordinairement après la correction de l'occlusion traumatique ou de l'occlusion béante, de même qu'après le rétablissement du contact proximal; mais par-dessus tout, elle obéit au détartrage méticuleux suivi d'un polissage sub-gingival

et à la pratique d'une hygiène personnelle strictement observée par le patient. Pour les autres formes, dans lesquelles les causes endogènes viennent s'ajouter aux facteurs sus-mentionnés, nous touchons forcément à une thérapeutique toute spéciale à chaque cas, si après avoir employé tous ces moyens thérapeutiques, la poussée évolutive continue et l'identification des facteurs organiques nous révèle la nature du terrain pathologique.

2.—Chez les femmes enceintes, il est recommandé d'appliquer les "packs" ou ciments antiseptiques dans les faux clapiers. Après plusieurs applications de ces ciments, à des intervalles de 15 jours, la compression qui s'exerce sur les bourrelets en réduit considérablement le volume, en diminue l'état inflammatoire à cause du contact prolongé de ce ciment contre la face érodée de ces bourrelets, qui devient moins exposée à l'invasion des bactéries et au contact des débris alimentaires en décomposition.

Après l'emploi de ces ciments, l'accessibilité au fond des faux-clapiers est telle

que l'application d'un astringent, soit par exemple, le chlorure de zinc à 8%, produit une amélioration remarquable. A remarquer que cette sorte de médication, pendant les derniers mois de la grossesse, ne constitue qu'une lère partie de la médication, qui peut engendrer une résolution ou une guérison totale des tissus; mais dans nombre de cas, il devient impératif, après les couches, de passer à la 2ème phase du traitement qui consiste à s'attaquer aux papilles hypertrophiées. C'est l'occasion de recourir soit à l'application du superoxol ou "oxygène atomique," soit à l'électro-coagulation, soit au cautère ou à la gingivectomie.

Quand la prolifération des fibres collagènes s'est produite d'une façon si intense, qu'elle s'étend en profondeur jusqu'à l'os alvéolaire, la récurrence n'est pas un fait étrange; c'est alors qu'il est permis, à des intervalles très écartés, de s'attaquer au néo-tissu de nature granuleuse en employant un astringent ou du superoxol. Car une première application des électros bi-polaires pour la coagulation superficielle, et une première gingivectomie ne réussissent pas toujours d'emblée.

Mieux encore, la gingivite hypertrophiante cède parfois assez facilement à l'action caustique de la pâte médicamenteuse d'Orban. Ce procédé chimico-coagulant, qui est employé sous la forme des "packs," entraîne une petite nécrose marginale de la partie gingivale en excroissance. Cette technique, naturellement, doit être entourée de beaucoup de précautions. Ici, nous arrivons à la conclusion que la gingivite "expulsive" dans la grossesse, étant le prototype des gingivites à cause endogène, répond, comme toutes les autres gingivites du même groupe, à un traitement long et méticuleux.

3.—Chez le patient reconnu diabétique, en plus de l'hygiène buccale observée strictement, la manipulation des tissus doit être faite avec plus de précaution, en raison du terrain qui est peu propice à la régénération cellulaire. Même pendant les périodes d'acalmie, qui se produisent à la faveur des injections d'insuline, la gingivectomie n'est pas très re-

commandée. Les interventions non-sanglantes telles que la médication astringente et l'électro-coagulation sont préférables. Les abcès, étant couramment observés chez ces patients, il est permis d'en cureter la base après l'évacuation du pus. Il va sans dire que l'intervention du dentiste, dans ce cas, va de pair avec celle du médecin.

4.—Quand une analyse révèle une déficience plus ou moins marquée du sang en acide ascorbutique, et que toutes les données cliniques concordent avec l'aspect pâle ou hypotonique d'une gencive qui est légèrement hyperémiee à la partie marginale, l'intervention du dentiste devient secondaire par rapport à celle du médecin, appelé à instituer une thérapeutique en face de l'avitaminose C ou B, qu'il convient de combattre. Une hygiène buccale rigoureuse, accompagnée de massages quotidiens et des améliorations apportées dans l'alimentation et dans le mode de vie du patient, permettent d'employer l'électro-coagulation ou la gingivectomie légère. La récurrence, n'étant encore pas rare dans ces cas, la répétition de ces mêmes interventions s'imposent parfois.

5.—Là où le traitement est parfois presque impossible, à cause de la lenteur que mettent les tissus à réagir et à régénérer en raison de la grande carence de défense de l'organisme, chez les vieux hospitalisés ou les cachectiques porteurs du 5ème type d'hypertrophie, seules, les mesures temporaires, telles que l'emploi de "packs" médicamenteux et l'électro-coagulation semblent apporter une amélioration sensible. Dans les cas d'empoisonnements allergiques ou métalliques, l'élimination de ces substances et l'action d'un dépuratif ramènent tout à l'ordre, avant que l'intervention du dentiste ne devienne trop longue.

Il ressort de ce court aperçu sur le traitement des formes courantes d'hypertrophie gingivale, que beaucoup de détails doivent être observés afin d'obtenir des résultats satisfaisants. Le succès des traitements dépend avant tout de la connaissance parfaite de l'histopathologie des tissus péri-dentaires et de l'influence éventuelle des tares fonctionnelles sur le

système masticatoire. Ajoutez à ceci une dose suffisante de patience, de jugement sûr, et la volonté de réhabiliter physiologiquement les tissus devenus pathologiques quand nous le constatons.

Quelques statistiques

Un bref regard sur des statistiques que nous pourrions dresser nous-mêmes, d'une façon spéculative et à notre fantaisie, nous permettra de considérer de plus près l'envergure que prend pour nous le problème du traitement de ces gingivites.

Si nous calculons, par exemple, que dans une ville d'un million d'habitants, l'on enregistre annuellement 20,000 grossesses à terme, nous pourrions figurer que 10,000 de ces femmes enceintes présentent une légère gingivite et que 2,000 autres, soit 10%, présentent une forme très marquée de gingivite.

En ajoutant à ce nombre 10,000 personnes, à peu près, souffrant de troubles gynécologiques avec des répercussions gingivales, nous comprendrions plus facilement l'importance d'une thérapeutique adéquate.

Notons encore que, parmi cette même population, 20,000 personnes peuvent être atteintes de gingivite à cause du manque d'hygiène buccale, du traumatisme occlusal, ou d'autres causes locales. Si nous supposons que, sur ce nombre, 2,000 patients seulement sont bien soignés, tandis que les autres sont exécutés après de simples attouchements antiseptiques et que d'autres, c'est-à-dire la majorité, sont "obligés" de subir l'extraction massive des dents, nous pourrions mieux évaluer encore le péril de la gingivite, qui tout aussi bien que la pyorrhée, constitue, par sa nature infectueuse et inflammatoire, un problème important et une menace au point de vue social.

De la gingivite à la pyorrhée alvéolaire

Plusieurs auteurs considèrent la pyorrhée alvéolaire comme le résultat d'un déséquilibre physiologique des tissus périodontaires sous l'action directe de certaines causes constitutionnelles. C'est-à-dire, à la faveur d'une étiologie complexe, le bord des alvéoles subit à la longue une dégénérescence, qui se mani-

feste par la fonte du tissu osseux, qui peut être lente ou même rapide, comme dans l'alvéoloclasie. Ce processus de dégénérescence, d'après eux, entraînerait la rupture des attaches de la dent à l'os alvéolaire et à la gencive, jusqu'à l'ébranlement partiel ou total de la dent, accompagné d'une infection subséquente.

Ceci n'est autre que la pyorrhée alvéolaire, qui à peu près 20 fois sur cent, se développe de cette façon, mais dans la majorité des cas, c'est la *Paradentite*, que nous venons de décrire, avec ses poussées de dégénérescence en progression continue, qui favorise l'éclosion de cette pyorrhée alvéolaire ou périementoclasie.

A cause d'une simple gingivite non soignée à temps, la paradentite dans les bourrelets ou papilles interstitielles passe à la phase de périodontose ou de paradentose, dans laquelle les éléments de l'épithélium s'incurvent vers l'apex en favorisant la rupture des attaches au ciment. D'où dégénérescence de la membrane périodontaire, qui subit un épaissement, à cause de la résorption de l'os alvéolaire et l'affaiblissement des cémentoblastes dégénérés, qui produisent une *cémentopathie*.

Du faux clavier courant et banal, on assiste à la formation des claviers pyorrhéiques remplis d'exudats, de pus ou de calculs salivaires. C'est ainsi que les gingivites hypertrophiantes, non soignées, prennent parfois l'aspect caractéristique de la pyorrhée à forme purulente, qui s'identifie avec la Schmutz-pyorrhée des Allemands. (figure 7)

Les cas les plus opiniâtres

Nous avons souvent éprouvé la satisfaction de constater des améliorations et même des guérisons rapides dans les cas de gingivites marginales ou courantes, après un détartrage minutieux, et le rétablissement de l'hygiène buccale. Et nous ne connaissons pas de circonstances aussi opportunes, où l'action d'un astringent, comme le chlorure de zinc à 8%, mélangé avec du sulfate de cuivre, donne des résultats aussi probants que rapides.

Mais par contre, nous sommes les premiers à avouer notre désappointement, quant après un traitement conscien-

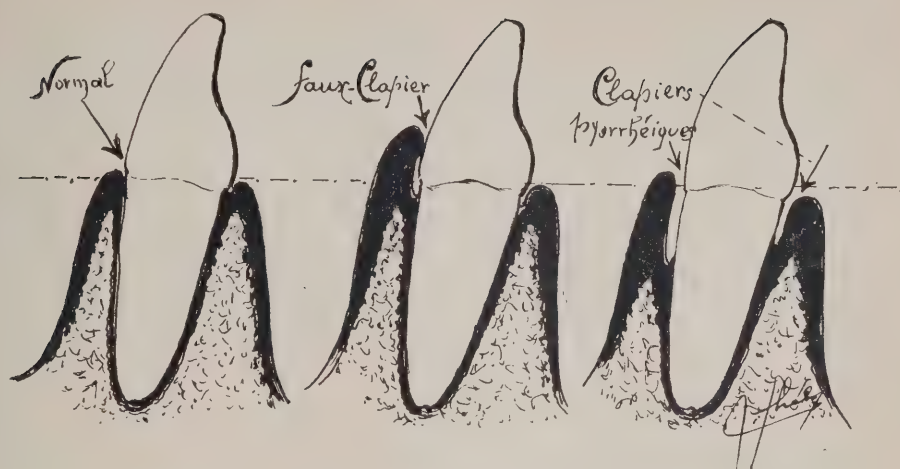


Figure 7

cieux, l'hypertrophie ou l'état inflammatoire des papilles n'arrive pas à céder le terrain, comme on le voudrait. Nous avons rencontré des cas chez les adolescents, garçons et jeunes filles, en pleine période de puberté, chez lesquels la récive était presque de règle.

Conclusion

Devant toutes ces difficultés, nous devons davantage avouer la prépondérance des facteurs organiques, que nous devons nous ingénier à dépister, soit seuls, soit avec l'aide du médecin. Nous ne pensons pas pour cela qu'une thérapeutique générale doit avoir la priorité sur le traitement local, mais nous reconnaissons, en plusieurs circonstances, le bien fondé de la vitamino-thérapie C et B³, par exemple, de l'amélioration du régime alimentaire et du traitement des troubles gynécologiques.

Dans les cas opiniâtres, il paraît curieux que nous soyons obligés de recourir à des mesures radicales, telle que la résection des parties enflammées de la gencive (gingivectomie), à l'électro-coagulation et parfois à l'usage d'un produit chimique à action légèrement nécrosante, sans même essayer d'employer le curetage sub-gingival, qui est le prototype des mesures conservatrices. (Figure 8)

Le fait est qu'il n'y a pas lieu de chercher à créer de nouvelles attaches au

cément, puisqu'il s'agit ici de faux clapiers entretenus par la présence de petites masses conjonctives hypertrophiées. Nous sommes les premiers à comprendre tous les avantages, qu'on peut tirer des moyens thérapeutiques accessoires, pour stimuler et régénérer les tissus, comme par exemple, l'action bienfaisante des massages et la pénétration "in situ" des bulbes d'oxygène au moyen du superoxol, mais nous pensons avant tout que, si dans le traitement de la paradentose, il convient d'éliminer les tissus granuleux, supprimer les clapiers et favoriser, si possible, le réattachement des tissus régénérés autour de la dent, nous croyons qu'il est aussi logique de faire reposer notre intervention dans les cas de gingivites susmentionnées sur ces trois principes:

- 1°) Dépister et éliminer toutes les causes locales ou organiques.
- 2°) Combattre l'irritation au moyen des antiseptiques et astringents.
- 3°) Réduire ou éliminer systématiquement les tissus hypertrophiés.

Même quand nous recourons à des mesures radicales, comme la résection gingivale et la coagulation, nous observons parfois, particulièrement chez les jeunes adultes, chez qui une influence endocrinienne joue un certain rôle, "une repousse des tissus granuleux" qui sont si prompts à l'hémorragie.

C'est ce qui donne raison à Orban (5),

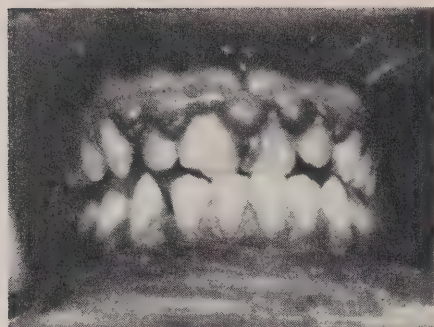


Figure 8.—a) Gencive hypertrophiée chez une jeune fille de 14 ans. (Partie antérieure seulement atteinte).

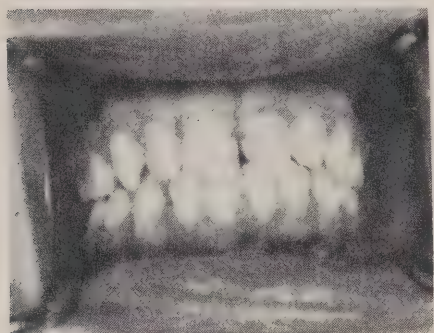


Figure 8.—b) Amélioration: 6 mois après une gingivectomie et un traitement approprié.



Figure 8.—c) Condition et apparence des tissus un an après. (de E. D. Coolidge).

qui considère la gingivectomie comme une première intervention, se réservant l'opportunité de s'attaquer au néo-tissu granuleux, qu'il réduit au moyen de l'oxygène atomique ou d'un astringent.

De tout ceci, nous pouvons conclure que les gingivites à forme hypertrophiante et rebelle peuvent être soignées, avec un certain succès, mais les traitements adoptés dès le début doivent être entourés

de beaucoup de détails, afin d'obtenir tout le résultat désiré.

Nous serions chagrins d'être considérés comme des extrémistes ou des "coupeurs impénitents de tissus pathologiques", car nous sommes partisans de toutes les mesures conservatrices, du détartrage méticuleux et surtout du curetage subgingival dans les cas de paradentose avec des clapiers peu profonds. Mais nous le répétons, quand il s'agit de nous débarrasser des tissus en excroissance, siège des faux-clapiers et d'une inflammation chronique susceptible à la récurrence, nous sommes obligés de recourir à la réduction ou à l'élimination radicale de ces tissus hypertrophiés.

BIBLIOGRAPHIE

1. Burkett: "Oral Medicine".
2. Glikman, Irving & Lewitus. J.A.D.A., Fév. 1941.
3. Jules Thébaud: L'Union Médicale (Mont-réal) Sept. et Oct. 1946.
4. Gottlieb: The Journal of Periodontology, Janv. 1946.
5. Orban: "Dynamics of Wound Healing following Elimination of Gingival Pockets". Oral Surgery, Jan. 1945.
6. Coolidge: J.A.D.A. Sept. 1941.
270, AVE OUTREMONT.

Médecins et dentistes réunis en congrès.

L'Association des dentistes de la rive-sud et celle des médecins de la même région se sont réunis conjointement, pour une deuxième année consécutive, à Lévis, le 11 octobre, sous la présidence du docteur Arthur Fafard, médecin de Lévis. Ce

congrès groupait les dentistes et médecins de Beauce, Bellechasse, Dorchester, Frontenac, Kamouraska, Lévis, l'Islet, Lotbinière, Mégantic, Montmagny, Témiscouata, Rivière-du-Loup, Rimouski, Matane.

La réunion s'est terminée par une réunion de fraternisation entre les médecins et les dentistes.

CHEZ NOUS ET AILLEURS

Réunion annuelle de 1948, à Murray Bay.

Les dates de la réunion annuelle de l'A.D.C. sont les suivantes:

Bureau des Gouverneurs, du 17 au 21 juin.

Congrès, du lundi, 21 juin au jeudi, 24 juin inclusivement.

Les programmes sont à se faire pour la réunion de l'an prochain, qui sera tenue aux dates précitées au Manoir Richelieu, à Murray Bay, Québec. Des renseignements, au sujet des taux et des réservations seront publiés sous peu.

Invitation pour la réunion de l'A.D.C. en 1949.

Le docteur L. J. D. Fasken, président de la Western Dental Society, au nom de l'Exécutif de cette organisation, vient d'inviter le président et le Comité Exécutif de l'A.D.C. à se joindre au Congrès de sa Société, à Saskatoon, en juin 1949.

Le Ministre de la Santé Nationale, à la radio.

Le 26 juillet 1947, l'Honorable Paul Martin, Ministre de la Santé Nationale, donnait une causerie à la radio, sur: "Les dents et leur place dans notre programme de santé nationale." Le Ministre disait, entre autres choses:

"La plus grande et la plus effective coopération existe entre mon ministère et l'Association Dentaire Canadienne, sur toutes les questions qui sont de nature à améliorer la santé dentaire de la population de notre pays. Il faut féliciter cette Association pour les efforts, qu'elle accomplit, pour donner une nouvelle conception à la dentisterie dans le domaine de la santé publique et pour inclure dans la dentisterie une connaissance plus grande de la santé publique."

Université de Montréal—Faculté de Chirurgie Dentaire

Cours Postsecondaires — 1947-1948

La faculté de Chirurgie Dentaire de l'Université de Montréal, avec l'aide de la Fondation W. K. Kellogg, reprend ses cours postsecondaires pour l'année 1947-1948 et est heureuse d'inviter tous les dentistes à en profiter.

Les inscriptions au cours d'endodontie, donné les mardis, 7, 14 et 21 octobre dernier, ainsi qu'au cours de chirurgie, qui eut lieu la semaine du 20 octobre, ayant été nombreuses, la Faculté, voulant répondre au désir d'un plus grand nombre, a donc fixé les dates suivantes dans différents services:

Chirurgie & Anesthésie: cours d'une semaine complète: du 19 au 24 avril 1948; cours de deux semaines, à raison de trois jours par semaine: les 9, 10 et 12 février; les 17, 18 et 19 février 1948; les 8, 9 et 11 mars; les 16, 17 et 18 mars 1948.

Endodontie: cours de trois semaines à raison d'une journée par semaine: les 11, 18 et 25 novembre 1947; les 24 février, 2 et 9 mars 1948; les 6, 13 et 20 avril 1948; cours d'une semaine complète: du 19 au 24 janvier 1948; du 3 au 8 mai 1948.

Prothèse: cours d'une semaine complète: du 17 au 22 novembre 1947; du 9 au 14 février 1948; du 5 au 10 avril 1948.

Cours de deux semaines, le matin seulement: du 1er du 13 décembre 1947; du 23 février au 6 mars 1948; du 12 au 24 avril 1948.

Orthodontie: Un cours de 9 jours, s'adressant aux orthodontistes seulement, sera donné à la fin du mois de janvier 1948 par le docteur Joseph E. Johnson, de Louisville, Kentucky, assisté des docteurs Joseph D. Eby, Henry V. Barber, jr., et Clare K. Madden. Quelques places seulement sont disponibles.

Nous avons encore quelques places pour le cours d'un an qui s'adresse à tous les dentistes voulant se spécialiser en orthodontie.

CANADIAN DENTAL ASSOCIATION

DIRECTORY OF OFFICIALS, 1947-48

OFFICERS

<i>President</i> —J. K. Carver.....	1240 Union Ave., Montreal, Que.
<i>Immediate Past President</i> —V. D. Crowe.....	807 Prince St., Truro, N.S.
<i>Vice-President</i> —H. J. Merkeley.....	611 Medical Arts Bldg., Winnipeg, Man.
<i>Secretary-Treasurer</i> —Don W. Gullett.....	211 Huron St., Toronto, Ont.

BOARD OF GOVERNORS

R. L. Pallen.....	5870 Cartier St., Vancouver, B.C.
R. A. Rooney.....	523 Tegler Bldg., Edmonton, Alta.
W. M. Blair.....	1005 McCallum Hill Bldg., Regina, Sask.
H. J. Merkeley, (<i>Vice-President</i>).....	611 Medical Arts Bldg., Winnipeg, Man.
Harvey W. Reid.....	195 Yonge St., Toronto, Ont.
G. H. Campbell.....	Orangeville, Ont.
J. F. Giffen.....	219 Queen's Ave., London, Ont.
S. J. Phillips.....	121½ Simcoe St., S., Oshawa, Ont.
J. K. Carver, (<i>President</i>).....	1240 Union Ave., Montreal, Que.
G. Ratté.....	140 rue St. Jean, Québec City, Qué.
H. W. MacDonald.....	1 Coburg St., Saint John, N.B.
V. D. Crowe, (<i>Past-President</i>).....	807 Prince St., Truro, N.S.
D. T. Waye.....	Charlottetown, P.E.I.
Don W. Gullett, (<i>Secretary</i>).....	211 Huron St., Toronto, Ont.

EXECUTIVE

J. K. Carver, (Chairman) ; H. J. Merkeley ; Gustave Ratté ; J. F. Giffen ; V. D. Crowe (ex-officio) ; Don W. Gullett.

CHAIRMEN OF STANDING COMMITTEES

Legislation—C. W. Sheridan.....	142 Laurier Ave., W., Ottawa, Ont.
Finance—H. J. Merkeley.....	611 Medical Arts Bldg., Winnipeg, Man.
Publications—R. P. Lowery.....	19 Glendonwynne Rd., Toronto, Ont.
Council on Dental Education—W. Scott Hamilton, Dean, Faculty of Dentistry, University of Alberta, Edmonton, Alta.	
Dental Health Education—R. R. McIntyre.....	714 Southam Bldg., Calgary, Alta.
Public Relations—Harry S. Thomson.....	18 Summerhill Gdns., Toronto, Ont.
Program—G. Ratté.....	140 rue St. Jean, Québec, Qué.
Ethics—Kenneth M. Johnson.....	314 Somerset Bldg., Winnipeg, Man.
Research—W. G. McIntosh.....	170 St. George St., Toronto, Ont.
By-Laws—J. S. Bagnall.....	78 Larch St., Halifax, N.S.
Necrology—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Nominating—Harvey W. Reid.....	195 Yonge St., Toronto, Ont.

CHAIRMEN OF SPECIAL COMMITTEES

Nomenclature—J. H. Johnson.....	230 College St., Toronto, Ont.
International Relations—Ernest Charron.....	1505 Crescent St., Montreal, Que.
Dental Services—D. S. Coons.....	Medical Arts Bldg., Hamilton, Ont.
Advisory—J. A. Bothwell.....	170 St. George St., Toronto, Ont.
Health Insurance—Don W. Gullett.....	211 Huron St., Toronto, Ont.
Auxiliary Services—R. A. Rooney.....	523 Tegler Bldg., Edmonton, Alta.
Industrial Dentistry—C. A. E. McCabe.....	Valleyfield, Que.
Specialists & Specialization—Arnold Mitchell.....	1414 Drummond St., Montreal, Que.
War Memorial Scholarship—Gerald Franklin.....	1414 Drummond St., Montreal, Que.
Hospital Services—G. V. Fisk.....	170 St. George St., Toronto, Ont.
Appointment to National Cancer Institute of Canada—Don W. Gullett	
	211 Huron St., Toronto, Ont.
Group Insurance—Harvey W. Reid.....	195 Yonge St., Toronto, Ont.



Courtesy Canada Steamship Lines Ltd.

Manoir Richelieu at Murray Bay

● All this and a lot more is waiting for the dentists of Canada next June when our *National Convention* will be held at this beauty spot on the great St. Lawrence River. Make reservations now so that you will not miss the splendour, luxury and solid comfort of the Manoir Richelieu as well as the playgrounds around it which breathe freedom, good cheer and happiness.



*"You spring from men whose hearts and lives were pure,
Their eye was single, and their walk was sure.
See that their children's children in their day
May bless such fathers' fathers when they pray.*





A. J. COUGHLAN, D.M.D.
Saint John, N.B.

Graduate of Saint Joseph's University,
Tufts Dental College.

Past President and Secretary-Treasurer of
New Brunswick Dental Society.

New Brunswick Representative of
Canadian Dental Association.

Served with the Canadian Dental Corps
in World War I.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 13

TORONTO, DECEMBER, 1947

NO. 12

PRACTICAL CONSIDERATIONS IN THE USE OF ANALGESICS*

by M. G. WHILLANS, M.D., Halifax, Nova Scotia
Department of Pharmacology, Dalhousie University

FEW DENTISTS or physicians fully appreciate the recent fundamental advances in the study of pain, and in the understanding of the action of drugs, old and new, in relieving pain. More progress in research in this field has been made within the past ten years than had been made in the previous thirty or forty years, and it behooves us all to take advantage of the rich yield of useful information these studies have given us.

In dentistry, the term *analgesia* commonly denotes the state of indifference to pain achieved by the use of some volatile anaesthetic, such as nitrous oxide or vinyl ether. This discussion will deal mainly with the analgesics characteristically given by mouth or by subcutaneous injection.

IMPORTANCE OF DEFINING ACTIONS OF ANALGESICS, HYPNOTICS AND NARCOTICS

Analgesics relieve or blunt (obtund) pain. The opium *narcotics* are powerful analgesics, but also, and usually subsequently, produce lethargy or sleep. *Hypnotics* are drugs which characteristically induce sleep (or hypnosis in the pharmacological sense). *Sedatives* are mild hypnotics. While all these drug classes have a common mode of action,—that of selective depression of the central nervous system, — it is im-

portant to remember that their pharmacological effects are quite different from each other. All too commonly a hypnotic is given the task of inducing sleep in a patient who has some discomfort. Part of the blame for the excitatory action of some of the barbiturates (notably pentobarbital) can be traced to this misuse. If the discomfort is not relieved first or concomitantly, the patient may become extremely restless, excitable and even delirious. Conversely, it is common lay and not uncommon professional practice to expect a sedative action from analgesics. The desired effect will not be attained unless a hypnotic is also given, though it is true that in a few patients' analgesic drugs appear to have a mild sedative action.

RESEARCH ON PAIN AND ANALGESICS

The *ideal analgesic* has yet to be discovered, but recently there has been an encouraging increase in our knowledge of the physiology of pain, and of the mode of action of analgesic drugs. The main handicap is that no drug yet available produces satisfactory relief from pain of more than moderate severity without producing undesirable side effects,—such as lethargy, nausea, vomiting, constipation, and the danger of addiction or habituation. The enthusiastic teamwork of Wolff,

*Presented before the National Convention of Canadian Dentists, Digby, N.S., June 1947.

Hardy and co-workers^{1,2} has resulted in much important information on pain and the action of analgesics. A good deal of our knowledge of the way in which pain is modulated in the body, and of the effect of analgesic drugs on the threshold for pain, has been contributed by them.

Another broad field of research is that concerned with the synthesis of new compounds or with modification of drugs already in use as analgesics. The greatest advances in producing new analgesic compounds had been made in Germany before and during the war (meperidine hydrochloride, "Dolophine"). Advantage is being taken of these advances, in developing further what the German workers found promising. In Great Britain, a search is being made for better analgesics by modifying molecules having a similar general configuration to molecules of known analgesics. In the United States, a notable co-operative study combining the efforts of two universities (Virginia and Michigan), the U.S. National Research Council and the Narcotic Bureau of the United States Public Health Service, has achieved tangible success in modifying the morphine molecule. The morphine molecule is complex, and at first glance might appear to offer many fruitful opportunities for modification. It has not yet been possible to synthesize the molecule, however, and even minor changes in it such as in substitution of the alcoholic or phenolic hydroxy groups, usually either reduce its potency or increase toxicity, or both. 'Metopon' (methyl-dihydromorhinone) which is just now appearing for limited clinical use, appears to represent a notable advance achieved by this co-operative effort.

The work of Wolff, Hardy and associates, on pain, and the effect of analgesic drugs on the threshold for pain has been at once revealing and provocative of new questions. Their method³ of studying pain and the results they obtained repay close study.

They exposed the blackened forehead of the subject to a measured amount of heat, and determined the threshold for pain by increasing the strength of the stimulus. A definite end point, consisting of a sharp stab or prick of pain is experienced by the subject, which is distinct from the sensation of heat. For trained subjects, the threshold remains surprisingly constant from day to day, within $\pm 5\%$. The variation between individuals is not greater than $\pm 15\%$. With this technique, they and others have discovered much about the physiology of pain, and the degree by which its threshold may be influenced with various analgesics. For example, it has been clearly demonstrated that the threshold for pain in co-operative, attentive subjects is not importantly influenced by changes in mood or by feelings of well or ill-being. Taking the individual's normal pain threshold as 0%, we find that therapeutic doses of the following drugs have a fairly constant and reproducible effect in raising the pain threshold.

	% rise
Evipal (0.5 gm).....	20
Acetylsalicylic acid and the "coal tar" analgesics.....	35
Pantopium HCl ("Pantopon")	35-40
Alcohol	45
Codeine	50
Meperidine HCl ("Demerol")	50-60
Morphine and Metopon.....	100
Dilaudid	105

There is a "saturation" level of pain-threshold-raising effect for both duration and intensity of action, and increasing the dose of the drug does not significantly further increase this effect⁴. With codeine for example, the "saturation" dose is 60 mgm (gr.i) and doubling or quadrupling this dose results in little further increase in analgesic action. (Fig. 1) (The "saturation" dose for the salicylates is 0.3 gm (gr.v) and for morphine, 30 mgm, (gr. $\frac{1}{2}$)). The oral route of administration for most analgesics is

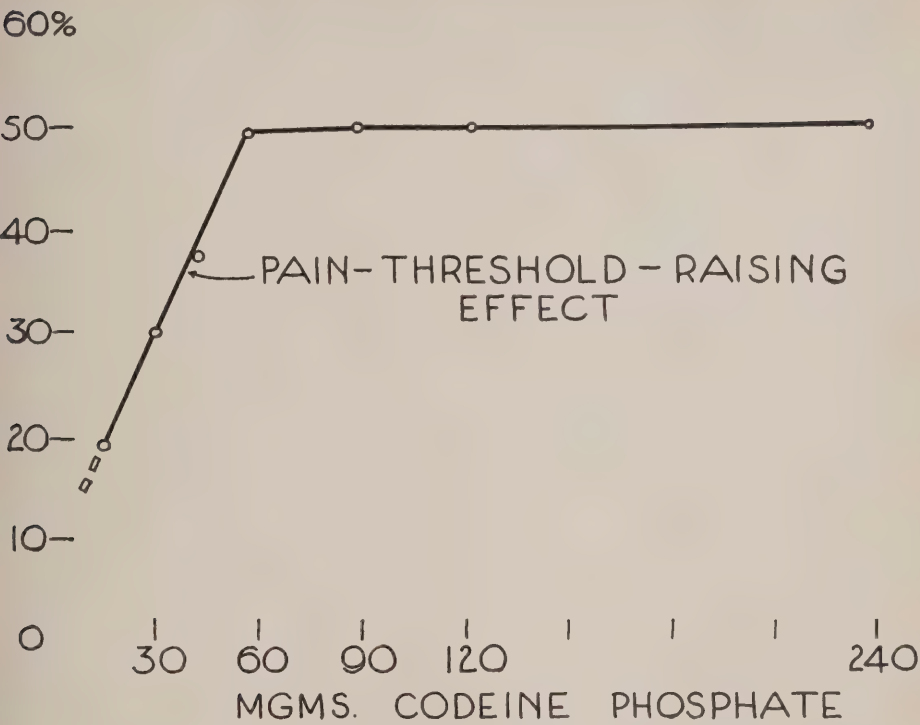


Fig. 1. The "SATURATION" DOSE OF CODEINE PHOSPHATE

A 50% elevation of pain threshold over the control level as zero is achieved with a dose of 60 mgm (1 grain). Increasing the dose does not appreciably raise the pain threshold. Ordinate = per cent elevation of pain threshold over the control level as zero. (Copied from graph in H. G. Wolff's article²).

less effective than other commonly used routes. Morphine, for instance, when given by mouth or taken sublingually, is much less effective than when the same dose is given parenterally. It is well to point out here that none of the analgesics have any local analgesic or anaesthetic action. The practice of prescribing aspirin gargles or opium pastes is therefore fallacious.

ANALGESIC ACTION OF HYPNOTICS

With hypnotics (the barbiturates, for instance) there is slight elevation of the pain threshold, about 15-20%. This level is not appreciably raised by increasing the dose; in fact one worker reports a return toward normal threshold as the dose is increased slightly. With larger doses leading to impaired

consciousness, the threshold rises progressively, as one would expect.

EFFECT OF PAIN ON PAIN THRESHOLD

It is important to appreciate the antagonistic effect of pain on the ability of analgesic drugs to raise the pain threshold. Fig. 2 shows how pain deliberately administered before or at the same time the drug is given, will reduce or abolish the action of the drug in raising the pain threshold. That this antagonism may be due to adrenaline secreted as a result of the pain, is indicated by a similar effect on the pain threshold following an injection of that drug⁴. Pain suffered over a prolonged period may be particularly exhausting, and the startling relief sometimes afforded by sedatives

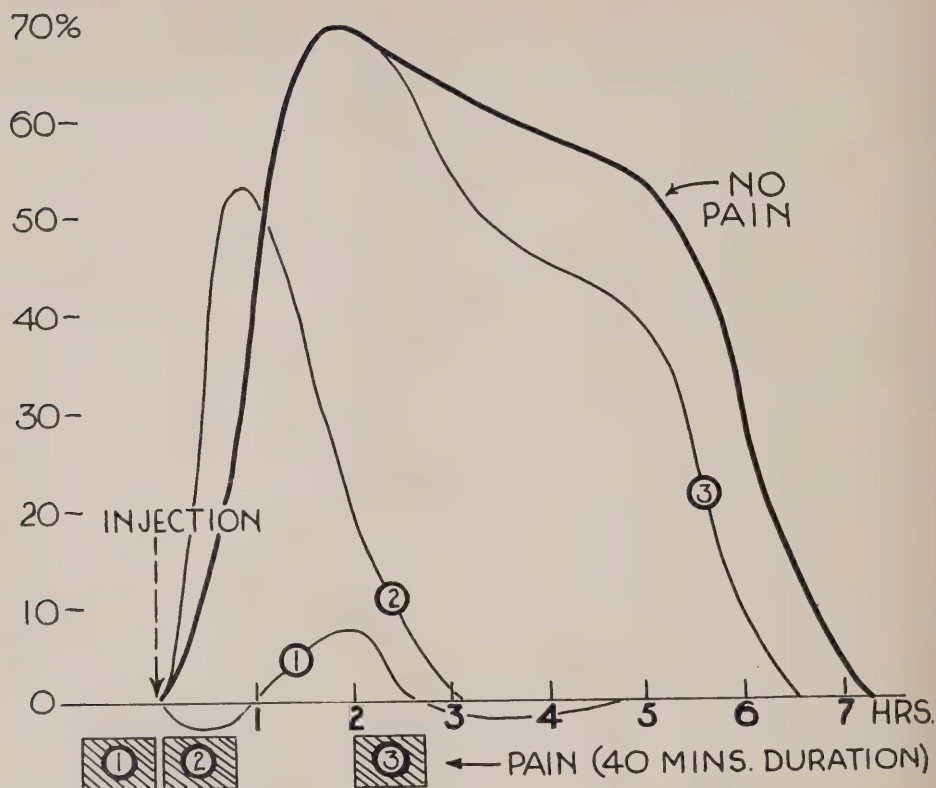


Fig. 2. EFFECT OF PAIN ON THE PAIN THRESHOLD

The heavy line indicates the extent and duration of elevation of the pain threshold following a single hypodermic injection of morphine sulphate, 15 mgm (gr. $\frac{1}{4}$). Pain given before the injection¹ effectively prevents a rise in pain threshold. Pain 2 hours after the injection² modifies the pain threshold only slightly. (Modified from graph in article by Hardy, Wolff and Goodell⁴).

could be explained, in part at least, by a reduction in a rate of secretion of adrenaline secondary to the sedative action. The antagonism between pain and the action of the salicylate and "coal tar" analgesics is less evident than with the opiates.

THE IMPORTANCE OF CHANGES IN THE "FEELING STATE"

Though the threshold for pain may not be significantly altered by changes in mood or feelings of well-being, the subject's reaction or "feeling" to the pain or stimuli associated with unpleasant connotations, is considerably affected by such factors. In other

words, although by objective measurements the subject may be found to have undergone no change in his pain threshold, his reaction to a painful stimulus may vary considerably from time to time. His response to the stimulus at one time might be one of indifference, and at another time be characterized by precipitate withdrawal with a strong emotional reaction. It is a common experience how markedly we may respond to a minor discomfort when irritable, and yet be able to stand that discomfort with equanimity when fresh and rested. So it is with patients in the dental chair. Those patients who when tired would

be able to stand very little discomfort, might show a reasonable capacity for pain if thoroughly rested before the appointment.

It is a clear appreciation of this "feeling" state that helps us to understand why such drugs as the opiates and alcohol are so effective, more effective than objective tests of their capacities to raise the threshold for pain would indicate. Opiates, such as morphine, owe much of their efficacy to their ability to make the patient indifferent to his pain. Obviously, part at least of the addicting power of morphine lies in the quality of making the patient more remote from his environment. Andrews⁵ in studying individuals who had previously been addicted to opiates found, that although a therapeutic dose of morphine raised the threshold to pain very little or not at all, the characteristic indifference to pain was achieved. Here then, is clear evidence of two components relative to the perception to pain not necessarily closely bound to each other; the peripheral, somatic more or less mechanical, reception of pain (measured by the pain threshold) and that component affected by the "feeling state".

It is well known that palmar sweating is closely associated with the response to unpleasant stimuli, and this fact has been applied to the study of this latter component⁶. Changes in skin resistance due to sweating following the application of painful stimuli were measured. The measurement of this reaction—called the *alarm reaction*—gave threshold values which varied widely from person to person, and in the same individual from time to time. The alarm reaction was not necessarily elicited by stronger stimuli than sufficient to exceed the pain threshold, and often could be produced by non-painful stimuli having unpleasant associations.

The important application of the study of this reaction is that the threshold for it may be raised manyfold by

therapeutic doses of some of the analgesics. For example 30 cc. of 95% alcohol in a predictable manner will raise the pain threshold about 45%, but its effect on the alarm reaction may vary from 50% in one individual to 800% in another.

Meperidine hydrochloride ("Demerol"), as shown above, has very little more effect than codeine in raising the pain threshold. However it has been found⁷ that the reduction in skin resistance response is of the same order of magnitude as morphine, and far greater in this respect than codeine. If we take this as an index of its effect on the "feeling state", meperidine hydrochloride is a much more effective analgesic than codeine.

Undoubtedly we would be closer to the therapeutic ideal if we had a drug which safely abolished the alarm reaction even at the expense of some reduction in the ability of that drug to raise the pain threshold.

It is likely to prove difficult to devise such an agent, for a glance at the list of drugs which have a powerful effect on the "feeling state" (e.g. the opiates, barbiturates, alcohol) will show them to be either habituating or addicting. It is the indifference to discomforts, mental and physical, which may be one of the powerful factors leading to dependence. Some drugs such as heroin, not only enhance this indifference or feeling of detachment to petty discomforts, but also produce euphoria, and these drugs are viciously addicting.

With the *salicylates* and *coal tar compounds* such effects are generally absent, and, as one would expect, serious habituation to these compounds is rare. (A possible exception is acetanilid, a popular remedy for headache and for menstrual distress.) The absence of effects on the "feeling state" makes them far less effective in the relief pain; less effective than the 35% rise in pain threshold attributed to them would indicate. For this reason one of the hypnotics may

be prescribed with them. It is important to realize the limitations of the salicylate group of drugs;—how ineffective they are in the presence of severe pain, their uselessness in traumatic pain, and their liability, if prescribed too generously, to induce secondary haemorrhages after operation due to lowering of the level of blood prothrombin. The salicylates, and characteristically acetylsalicylic acid, are often the cause of pronounced sensitivity reactions—not uncommon nowadays with the lavish self-dosing that goes on. Their value is undisputed for muscular and joint discomforts and for a high proportion of headaches.

The inclusion of acetanilid or aminopyrine in "pain tablets" which can be obtained without a prescription is difficult to justify. Both compounds may cause serious or fatal poisoning. Any advantage they may have over safer compounds is so slight as to justify their use only rarely.

It has been a favourite habit in drug house advertising to indicate that a combination of small doses of analgesic drugs gives a "smoother" effect than using a single analgesic and that there is summation or even potentiation of analgesic action. Such summation of effect is wishful thinking, for the total threshold-raising effect of the combination is that only of the most effective component of the prescription⁸ (though sedative and hypnotic effects may summate). Proven potentiation of the salicylates occurs when paraaminobenzoic acid is simultaneously given⁹. A mutual competition for renal excretion seems to occur, resulting in higher blood concentrations of both drugs. This work is still too recent and untried to justify general application at this time. A similar action in decreasing the rate of excretion of morphine has been shown for neostigmine methylsulphate¹⁰. Such mechanisms for increasing the potency of single doses of analgesics, and especially of the nar-

cotics give promise of even greater safety and usefulness for these drugs.

ROLE OF SUGGESTION

The role that the dentist may play in making the patient better able to withstand pain extends beyond the prescribing of sedatives. Suggestion, in the form of reassurance, and a proper approach to the patient, especially while he is in the chair, may act powerfully in overcoming his discomfort and gaining his confidence. The pain threshold can be raised as much as 35% by suggestion and distraction¹¹. The dentist who is confident and able to make his patient feel confident in him, and who can allay the patient's fears, may thereby induce such a rise in the pain threshold. Although the rise in the pain threshold so obtained is valuable, the change in the patient's "feeling state" is the most important effect of reassurance and a positive approach. While drugs are invaluable, it should not be forgotten that cheerful co-operation may be lost if the analgesic of suggestion and reassurance is withheld.

PREScribing OF ANALGESICS

¹ There is a common tendency among dentists and physicians to prescribe inadequately for the relief of pain. If a drug is necessary it should generally be given in sufficient dose to realize its full value. On the other hand, it will be not only useless but often hazardous to give more than the "saturation" dose.

The severity and character of the pain should determine the selection of the drug to be used. In general all analgesics relieve deep pain as effectively as cutaneous pain, but there are important qualifications. It is generally accepted, though not proven, that the salicylate and coal tar compounds are put to their best use in relieving headaches and muscular and joint discomforts. For severe pain, nothing short of the opiates is effective, albeit some claim that meperidine hydro-

chloride is almost as effective as morphine. If the pain is sharp and stabbing no analgesic is satisfactory, though indifference to the pain may be achieved readily enough. It is the steady aching pain that can be best relieved with analgesics.

If the patient has had the discomfort for some time, and especially if he has lost some sleep because of it, some sedative or hypnotic action would almost certainly have value. A minor pain may be relieved readily, but a small dose of pentobarbital, chloral or some other hypnotic will enhance that relief and give the patient rest or release from tension.

SUMMARY

1. It is important to differentiate the activities of the analgesics, the hypnotics and sedatives, and the narcotics.
2. There is a "saturation" dose for each analgesic. Further increasing the dose is unnecessary and possibly dangerous.
3. Pain is antagonistic to the pain-threshold-raising action of the analgesics.
4. There are two thresholds relative to the appreciation of pain: the pain threshold, and the threshold for the "alarm" reaction. Of these, the lat-

ter is probably the most important, being an index of the "feeling state".

5. The modification of the "feeling state" is probably the most useful effect of some of the analgesics. Unfortunately, such an effect seems to be closely allied to the problem of addiction.
6. The qualitative differences in analgesic action among analgesic drugs should be recognized in prescribing the right drug for the pain being treated.
7. For long continued pain, the administration of a mild sedative with the analgesic will do much to advance the comfort of the patient.

BIBLIOGRAPHY

1. Wolff, H. G. and J. D. Hardy
Physiol. Rev. 27, 167, 1947.
2. Wolff, H. G.
Harvey Lectures, 39, 39, 1943.
3. Hardy, J. D., H. G. Wolff and H. Goodell.
J. Clin. Invest. 19, 649, 1940.
4. Ibid.
J. Clin. Invest. 19, 659, 1940.
5. Andrews, H. L.
J. Clin. Invest. 22, 511, 1943.
6. Wolff, H. G., J. D. Harvey, H. Goodell.
J. Pharmacol. and Exper. Therap. 75, 38, 1942.
7. Andrews, H. L.
J. Clin. Invest. 19, 517, 1940.
8. Hardy, J. D., H. G. Wolff, H. Goodell.
J. Clin. Invest. 20, 63, 1941.
9. Dry, T. J., H. R. Butt, C. H. Scheifley.
Proc. Staff Meet. Mayo Clin. 21, 497, 1946.
10. Slaughter, D.
J. Lab. and Clin. Med. 28, 1199, 1943.
11. Hardy J. D., H. G. Wolff, H. Goodell.
A. Res. Nerve. and Ment. Dis. Proc. 23, 1, 1943.

The broadened scope of dental practice has increased the dentist's responsibilities. In addition to the restorative and prosthetic services, the dentist must now assume responsibility for the diagnosis and treatment of diseases of the oral mucosa. He must also have a general knowledge of certain systemic diseases, how oral disease may aggravate or be aggravated by them, and how their existence may modify dental treatment planning.

The average dental practitioner does not sufficiently appreciate his potential opportunities in disease prevention. Of special importance is the clinical recognition of precancerous lesions of the oral tissues and early malignant changes.

The field of nutrition is of particular importance to the dentist since subtle changes in the oral structures may be the first clinical evidence of a nutritional deficiency. Changes in the colour and variations in the lingual papillary development and distribution are especially significant in nutritional diseases.

LESTER W. BURKET in *Dentistry*.

"A good book is the precious life-blood of a master spirit, embalmed and treasured upon purpose to a life beyond life."—Milton.

DENTAL DISUSE AND CARIES INCIDENCE

by H. H. NEUMANN,* St. Albans, New York

BONES, muscles, peripheral nerves, and any organ physiologically connected with mechanical functions, react to disuse with atrophy.¹ The teeth being part of the bony skeleton, it is justifiable to examine whether they too react to reduction of activity below a physiological minimum with atrophy and demineralization.

In disuse atrophy of the bone the changes appear early on radiological examination. They are detectable only in the spongy trabecular structure while demonstration in the cortex is difficult or impossible until at an advanced stage real narrowing of the cortex takes place. Owing to the dense, non-trabecular structure of the tooth, the radiographic method can not be applied to detect a reduction in density, as too many variable factors enter in an attempt to estimate the density of a uniform shadow on different films.

Examination by chemical analysis is not satisfactory as it has been demonstrated in disuse atrophy of the bone that the chemical composition undergoes no detectable qualitative alteration. The changes represent merely a quantitative variation affecting the density of the tissue.

A different approach to determine the effects of use and disuse on the teeth consists in making a survey of many races and examining their food habits and their dental condition. The possible influence of many other factors and their results on the incidence of dental caries has to be considered.

At first the prevailing concepts on the aetiology of caries will be contemplated. They may be loosely grouped as follows:

- (1) Mineral deficiencies, particularly of calcium and phosphorus
- (2) Fluorine deficiency
- (3) Poor mouth hygiene
- (4) Inadequate sunshine

- (5) Hereditary factors
- (6) Vitamin deficiencies
- (7) Overuse of refined carbohydrates, especially starch
- (8) Excessive sugar consumption
- (9) Lack of detergents in the diet

Any of these explanations to be acceptable should be applicable the world over. The following analysis will indicate why they appear to be unsatisfactory in the light of experiences and observations on dental conditions universally.

MINERAL DEFICIENCIES

Dental caries may be rampant, moderate or absent in regions with a high, medium or low calcium level in the water, without any connection between the two factors.

Poor teeth are found in parts of New Zealand with a low calcium level in the water, in parts of England with a medium calcium level, and in parts of South Africa with a high calcium level. Good teeth were found among natives in Alaska regardless of low or high calcium or phosphorus intake. Numerous studies testify that there is no correlation between calcium and phosphorus intake and caries immunity.^{2, 3}

FLUORINE DEFICIENCY

Determination of the fluorine intake in the diet did not give a clue to the distribution of dental caries. In South Africa, Kenya and Australia dental decay is prevalent among the white people, while the non-assimilated natives of the same places are hardly affected although using the same drinking water.

Tea is considered one of the few foods high in fluorine content. It does not prevent rampant caries in the English.

A very low fluorine content of the

* Former Medical Officer, New Zealand Government Health Department.

drinking water is compatible with excellent teeth and a low caries incidence as in Southern Italy and Sicily.

A recent study of the dental condition among Indians in Mexico⁴ concluded as follows: "The observation that nearly fifty percent of adult males had perfect teeth seems remarkable. Chemical examination of the water from several of the wells shows 0.2 to 0.3 ppm of fluorine. This is far below the optimum usually stated to be desirable for preventing caries."

POOR MOUTH HYGIENE

Mouths in filthy hygienic condition are often free from caries and experiences by numerous observers in many countries show that there is no relationship between oral hygiene and caries.^{5, 6} It is often found that the incidence of tooth brushes in different countries is in inverse proportion to the incidence of sound teeth.

INADEQUATE SUNSHINE

There is no correlation between the climatic condition and the amount of sunshine of a locality, and its dental condition. In regions with much sunshine the teeth may be comparatively good (southern U.S.) or very poor (South Africa, Kenya, Australia), and in regions with little sunshine the teeth may be good (Eskimos, Maoris in southern New Zealand) or poor (England).

HEREDITARY FACTORS

A racial influence is suggested by the fact that the countries with the worst dental conditions all are inhabited by people of British stock. This conclusion is disproved by the fact that natives of any race and in any part of the globe, who fully adopt British food habits, suffer from dental caries to the same degree as the British themselves and within one generation of contact.

T. D. Campbell⁷ describes the teeth of the indigenous Australians as follows: "The native develops a wonderful dental outfit, the disintegration of which rarely takes place until senescence, if at all. A dentition produced under such conditions, when changed to

a civilized food environment disintegrates with the same rapidity and ravaging effects as those of the average white person."

The study of the teeth of aborigines (Bantu, Maoris, Eskimos, Australian Aborigines), almost perfect while on their native diet and carious when they change to modern diet, suggests that the element of constitutional and hereditary factors and also racial susceptibility are entirely secondary to dietary habits.

It appears that all human races are equally susceptible to dental caries, the onset of which is conditional and does not depend on a racial predisposition or on constitutional factors.

VITAMIN DEFICIENCIES

The population of New Zealand with the highest caries incidence in the world shows no signs of any vitamin deficiencies. Butter, milk and fresh fruit are abundant and the population has a very good health record apart from its teeth.

A series of investigations in the Kangra district of Northern India⁸, where a large proportion of the population suffers severely from malnutrition and where rickets and osteomalacia are extremely prevalent, showed that almost perfect teeth (very low incidence of caries) were compatible with severe rickets. The ill-balanced diet consisted mainly of cereals and contained almost negligible amounts of "protective" foods such as fruit, green vegetables, milk and milk products; calcium and vitamin A, C and D are present in the diet in markedly inadequate quantities.

The effect of prolonged multiple vitamin deficiencies and severe malnutrition were surveyed after the release of American prisoners of war from Japanese prison camps.⁹ A dental survey in this group showed that the number of carious teeth was less than that of the same age group living under normal conditions.

OVERUSE OF REFINED CARBOHYDRATES ESPECIALLY OF STARCH

The cause to which caries is most

commonly attributed is the excessive use of starch in the diet. There are considerable objections to attaching any importance to starch as a cause of dental decay. In central and southern Europe where the teeth are comparatively good, the food is rich in so-called refined carbohydrates. In central Europe potatoes, bread and sweet dishes are prominent. In Italy and Spain, bread, spaghetti and rice are staple foods—yet the teeth are good.

On the other hand, in New Zealand, where one encounters the worst teeth in the world, more proteins and less starch are consumed in proportion than in most other countries. Prevailing in the menu are meat, eggs, milk and cheese. New Zealand and Australia are considerably heavier meat-eating countries than either Europe or North America.

The high protein diet cannot be held accountable for the tooth decay as natives for example in the subarctic region may live entirely on a meat diet and still maintain sound teeth.

EXCESSIVE SUGAR CONSUMPTION

In central Europe, where teeth are fairly good, meals ordinarily conclude with a cooked sweet dish. Negroes in the West Indies who habitually chew sugar-cane, have excellent teeth and the simple sugars of sugar-cane, chemically the same as refined sugar, seem to have no detrimental effect on their teeth.

The sugar consumption per capita is higher in North America than it is in England and although far more candies are consumed in North America than in England, still the American teeth are much sounder.

LACK OF DETERGENTS IN THE DIET

If large groups are compared there is a definite and constant correlation-ship found between disuse of the teeth and a high caries incidence. Yet the detergent action of tough food cannot explain the interdependence: In primitive peoples with low caries incidence the teeth are often strikingly dirty in

appearance, the incidence of salivary calculus and dental plaques may be extremely high and the bacterial flora in the mouth abundant. The detergent action seems to be limited to the chewing surfaces and affects least the places where food lodges and ferments. Still, caries also proximal caries is infrequent.

DENTAL DISUSE

The problems of dental decay narrow down to almost ideal experimental conditions in Australia and New Zealand where the best and the worst teeth existed and exist successively and simultaneously, depending not on the Polynesian or Anglosaxon origin of the individual but on whether his diet is Polynesian or English.

In what respect does the diet of countries with notoriously bad teeth, like Australia and New Zealand, differ from the diet of other countries? There is no shortage of vitamins, fluorine, calcium or phosphorus, the diet is comparatively poor in starch and not excessive in sugar and the raw materials included in the average diet are qualitatively about the same as in other civilized countries.

However a striking characteristic of the Australian and New Zealand diet is its softness. Practically all the food of the standard New Zealand diet can be eaten without mastication. The meat is thinly cut and taken in small pieces that may or may not be chewed before being swallowed. Proper use of the teeth is considered bad table manners. The breadcrust is usually cut off and thrown away and the bread then cut into small pieces before being eaten. In other countries the breadcrust often represents the only remainder of some toughness left in the modern diet.

Food eaten with the aid of cutlery rarely requires real mastication and the number of solid foods eaten without cutlery is very limited in the modern diet. By far the most prominent is bread, and at this point it may be interesting to compare the dental conditions in various countries in relation

to the customary thickness of bread slices and the types of crust.

The following table helps illustrate this relationship:

Country	Customary Thickness of Bread Slices	Type of Crust in Common Use	Comparative Dental Condition ¹⁰
New Zealand.....	Approximately 1/4 inch	soft	very poor
Australia.....	1/4 inch	soft	very poor
England.....	1/8-1/4 inch	soft	poor
United States.....	1/8-1/2 inch	mostly soft	fair
Central Europe.....	1/8-3/4 inch	tough	good
Eastern Europe.....	1/8-3/4 inch	tough	good
Italy.....	1 1/2-2 inches	tough	very good

There is a constant correlationship between disuse of the teeth and high caries incidence, if large ethnic groups and their food habits and table manners are compared. How can disuse of the teeth be a pathogenic factor?

DISUSE ATROPHY

The following basic points about disuse atrophy are known:

- (1) Every organ physiologically connected with mechanical functions of the body reacts necessarily to disuse with a rapid atrophy.
- (2) Disuse osteoporosis occurs regularly and independent of individual factors and in proportion only to the degree of disuse and to the time factor.
- (3) In bones disuse atrophy may be diffuse or patchy, or cavities may be formed.¹¹
- (4) Any amount of calcium and vitamins administered by mouth or parentally is unable to prevent or defer the progress of disuse osteoporosis.

Bone and dental tissue are morphologically and functionally closely related. From comparison with the pathology of the bony skeleton and from observation of the food habits and of the dental conditions in different countries it is apparent that the primary aetiological factor lies in a disuse porosis of the teeth. These observations lead to the suggestion that dental caries is not a disease entity in itself but a symptom of an underlying path-

ology which may be called: disuse odontoporosis.

PREVENTION OF DENTAL CARIES
Frequent and careful cleansing of

the teeth practiced by civilized man has no appreciable effect in the prevention of caries. In spite of the victorious ubiquitous toothbrush dental caries is more rampant now than ever.

The accepted modern nutritionally sound diet with well balanced minerals, vitamins and calculated ingredients seems to have no bearing on caries immunity.

From the foregoing considerations and observations it is suggested that dental caries is caused by a specific dietetic deficiency, the deficiency of tough food.

CONCLUSIONS

The prevention of endemic tooth decay would require the addition to the diet of a certain quantity of tough matter. The addition of some hard bread-crust (old Swedish or Italian type bread) to the daily diet would suffice to maintain fairly good teeth with a reasonably low caries incidence. Other foodstuffs in the ordinary diet are of less or no value for mastication. Carrots and celery, apples and fruit generally are of little use in this regard. Biscuit, cracking hard food and toast are still less suitable. Chewing gum is too elastic and soft for the purpose.

Experience showed that chewing of sugar-cane is well suited for the treatment of odontoporosis; great care must be taken at first as some of the apparently sound but structurally inferior teeth may break. This phenomenon

could never be observed in natives with sound teeth.

If rice is the staple food as among the South and East-Asiatic races, the teeth may be good or bad according to the local method of preparing rice. The prevention of caries among these races requires the consumption of undercooked rice, leaving the grinding down of the grains to the teeth. Where this is the custom, as for instance in parts of the Philippines, the teeth are excellent; while in parts of China, where the rice is well cooked, the teeth are found to be in poor condition.

Among Indians it may occasionally be observed if they have eaten their rice undercooked, that after a lifetime of chewing the teeth are free from caries, but the surface may be ground down and the teeth shortened as one would find in old horses.

Attrition and dental caries occur in inverse relationship and usually exclude each other except when the attrition reaches the pulp cavity and further chewing becomes painful.

Though there is little immediate hope of getting the white man to eat tougher food generally, this major deficiency of modern diet can be largely corrected by adding sufficient "toughage" to what we eat.

SUMMARY

From comparison with the pathology of the bony skeleton and from observation of the food habits and of the dental conditions in different countries it is apparent that the primary aetiological factor of endemic dental caries lies in disuse of the teeth. This disuse leads to demineralization and porosis of the teeth, regardless of an adequate intake of minerals and vitamins in the diet,

and thus exposes the teeth to the attack of the bacterial flora in the mouth.

Reviewing the factors commonly blamed for endemic dental decay—such as mineral deficiencies, fluorine deficiency, poor dental hygiene, inadequate sunshine, constitutional factors, vitamin deficiencies, and overuse of starch and sugar in the diet—it is concluded that they have little effect on endemic dental decay, and do not explain its peculiar geographical distribution. The consistency of the food, the table manners and the extent of the use of cutlery can be regarded as factors infinitely more important in the aetiology of dental caries.

From the considerable reduction in the calcium content in bones, following a short immobilization, it is evident what important and rapid effect inactivity has in provoking decalcification and atrophy. Because of the analogy to the commonly known disuse osteoporosis in bone pathology, it is suggested to call the pathology underlying dental caries "Disuse-Odontoporosis" and to classify dental caries as a symptom of it.

REFERENCES

- (1) Effects of use and disuse on nerve and muscle. J. Z. Young, *Lancet*, London, 2: 109, 1946.
- (2) Jennox, Joseph, Summary in "Dental Caries", *Am. Den. Ass.*, 1941, p. 160.
- (3) Siegel, Eli H., *Amer. J. Dis. Child.*, 1940 (19).
- (4) Anderson et al., *Amer. J. of Publ. Health* 36:8 (1946), p. 901.
- (5) Enright, J. J., *J. Den. Res.* 12, 759, 1932.
- (6) Cotton, W. A., *J. Am. Col. Den.*, 6, 65, 1939.
- (7) Campbell, T. D., *Aus. J. Den.*, 1939.
- (8) Day, C. D., Marshall, Summary in "Dental Caries", *Am. Den. Ass.*, 1941, p. 90.
- (9) Morgan, Wright, Ravensway: Health of repatriated prisoners of war from the Far East: *J.A.M.A.*, 130:995 (April) 1946.
- (10) Neumann, H. H., *J. R. Inst. P. H. & Hyg.* 9:373 (December 1946).
- (11) Campbell, "Textbook of Orthopedic Surgery", 1930, p. 474.

"Whatever people are, whoever they are, and wherever they are, there too must we be."

*"He prayeth best who loveth best
All things both great and small."*

—Samuel Taylor Coleridge

DIAGNOSIS OF CARIOUS LESIONS ON THE PROXIMAL SURFACES OF TEETH*

by JOHN HADDIN BARR, D.D.S., B.Sc. Dent.†

THE EXTENT to which dental practice is occupied with the problem of carious proximal tooth surfaces needs no emphasis. Nor is it any use pretending that despite commendable progress toward their prevention, proximal cavities will not continue to appear with distressing and monotonous frequency. There is, it is true, some promise that the incidence of proximal decays may be reduced by local medicinal therapy or dietary reform. That does not alter the fact that we cannot as yet rely with confidence on the ideal of prevention in practice, and we must face up to the alternative concept of controlling the condition whenever and wherever it makes its appearance. The important principle is that, given opportunity to take care of proximal caries in incipient stages, there is virtually certain promise of control so effective that the health of the involved teeth will continue unimpaired. The vital factors in assuring this are firstly, early diagnosis of beginning decays and secondly, effective operative or restorative therapy. There is seldom need for failure in either direction in modern dental practice; yet it must be patent to every observant practitioner that this modified ideal of the control of caries is far from universally realized. In this situation lies the reason for directing close attention to the diagnostic factor. This paper will study the characteristics and signs of proximal caries, evaluate techniques for its efficient diagnosis, and then discuss some aspects of radiographic technique and interpretation; for it should emerge that no examination for proximal caries can possibly be considered adequate without both physical and radio-

graphic inspection of proximal tooth surfaces.

It is difficult to understand why this premise has not yet been universally accepted and adopted in practice. There are still those who conscientiously believe that the radiographic examination is not a necessary complement to physical examination for the purpose under consideration. With this it is possible to agree up to a point, but provided always that the routine physical examination involves effective isolation and separation of every proximal tooth surface. We all recognize that this is not a reasonably practical procedure; nor, I hope to show, is there cause to consider advocating it. Other dentists, admitting that many more cavities would become evident, avoid radiographic examination of the teeth for fear of finding too much operative work. In some cases this would cause embarrassment to themselves on account of a full appointment book; in other cases they shrink from finding additional restorative work for fear that the patient will not react agreeably to consequently larger accounts. These are not valid or honourable reasons for deliberately withholding from a patient information upon which the future of his dentition may depend. And the dentist who through his apathy—and he is not rare—fails to make full use of proved diagnostic techniques for the disclosure of proximal caries no less falls short of honouring the creed of his profession. Others hopefully tell themselves that radiographic examination is a luxury their patients cannot afford, whereas in all truth it is an examination they can ill afford to do without, as we will see. And I have

*Presented before Western Canadian Dental Societies, March 1947.

†Division of Oral Diagnosis, Faculty of Dentistry, University of Alberta.

reserved until last a most surprising statement made in justification of reliance solely upon physical examination, namely that cavities will ultimately become clinically evident as they extend, and that they may be quite satisfactorily taken care of at such time as they do become apparent. This is a dangerous policy, surely destined to defeat the whole basis of successful caries control.

There must be no disagreement on this:—The successful control of proximal caries implies the conservation of the vitality and health of the tooth, keeping pathologic and operative destruction of the tissues as superficial and as remote from the pulp as possible. This demands the earliest possible diagnosis of beginning carious lesions. So frequently are we confronted with a distressing clinical picture betraying a type of examination far from characteristic of diligent and conscientious search for proximal caries, that there is ample cause for concern. This presentation is therefore frankly designed both to encourage the wider use of interproximal radiography in the belief that this will go far towards remedying the situation referred to above: and for the many who already make radiographic study of proximal tooth surfaces, to offer confirmation of their policy, perhaps at the same time contributing to their more effective use of the technique.

CHARACTERISTICS OF PROXIMAL CARIES

Proximal carious lesions are not characteristically apparent on physical examination through their earlier stages. The initial process is typically located just gingival to—not at—the contact point, in association with the food lodgment area constituted by the interproximal space. The location of the lesion seldom permits direct view until the carious process has extended considerably over the enamel surface. This is unlikely to occur until it has already progressed through the narrow area of enamel initially attacked, and

extended far into the dentine. Proximal cavities cannot therefore be expected to be evident on visual inspection until they have become considerably advanced. They are more likely to be disclosed by exploration of the tooth surfaces, but even this procedure is many times ineffective in revealing the carious process, more particularly when associated with the less accessible broad contact areas of deciduous and permanent molar teeth. Proximal cavities as they progress sufficiently will produce an opacity or colour change visible through the overlying tissue of the marginal ridge area. This change is inconstant and when present, is a valuable indication rather than a reliable diagnostic sign. Transillumination, or its everyday modification in the form of light reflected on to the lingual surfaces of anterior teeth, is definitely helpful in disclosing relatively smaller cavities proximally on anterior teeth. Even assuming a thorough routine prophylaxis of the teeth prior to clinical examination, no one of these signs will necessarily be present.

A proximal cavity may well be more evident subjectively to the patient. Who has not had the experience of searching the surfaces of a tooth in which a patient complains of sharp pain when eating sweet foods, only to find no apparent sign of any of the possible causes—removal of protecting enamel by caries, erosion, attrition, abrasion, or an area of exposed cementum? Yet if the symptom is reliable, there is assuredly cause for it, and resort to radiography has in numerous such cases revealed a proximal cavity of surprising if not alarming dimensions. But just as there may be no signs on physical examination, there may also be no symptoms; and the patient who experiences pain in the early stages of caries is not to be regarded as altogether unfortunate.

Radiographically, proximal caries appears as a dark or radiolucent area on the image of the hard dental tis-

sues, resulting from the removal of radiopaque mineral salts in the process of caries. This is infallibly evident from the very earliest stages, save only when obscured by the interposed image of a dental restoration or the superimposed image of part of another tooth.

EVALUATION OF TECHNIQUES OF EXAMINATION

In evaluating techniques for the examination of proximal tooth surfaces, it will become apparent that the radiographic examination may be expected to disclose many more carious lesions than the physical examination. An impression could be created that of these two techniques the former should even come to be regarded as the basic examination for this purpose. It is advisable to repudiate this possibility, for the physical or clinical examination stands unchallenged as the basic technique for oral examination, and around its findings those of all other techniques must be grouped. There are instances, and this is a case in point, in which the findings of the physical examination tend to be overshadowed; but we must at no time lose sight of the principle of examination of the mouth as a whole, in its total relation to general health and vitality. Only the physical examination can qualify as a basis giving an overall view, and its inferiority to any other procedures applied to limited and special problems of examination does not affect its key position. Moreover the interpretation of radiographic data on proximal caries should not and often cannot be final until it has been correlated with the findings of the physical examination.

It has been established that under almost all the conceivable circumstances likely to be encountered, the radiographic examination for caries on proximal tooth surfaces is to be regarded as an indispensable complement to the physical examination. Findings from an investigation which

has already been reported, and more comprehensive findings from another investigation to be reported shortly, provide convincing evidence; and in large part the facts which emerge from these projects are amply supported by earlier findings from other surveys. Our findings may be expected to support the following statements:

1. The effectiveness of the *clinical examination shows wide variations* under different conditions, e.g., teeth in contact, number of restorations present, region of the mouth being examined, whether carious lesions are virgin cavities or defects about restorations, and whether teeth being studied are deciduous or permanent teeth.
2. There is a surprising variation in the findings from the clinical examinations of identical cases or strictly comparable groups reported by different individual operators—a salutary lesson to those who pride themselves on their ability to make careful physical examination of the teeth.
3. Under practically all circumstances, the findings from clinical examinations are less than those disclosed by radiographic examination. Only in the case of anterior teeth presenting numerous silicate restorations has the physical examination been found to approach the efficiency of the radiographic examination in disclosing proximal defects.
4. The efficiency of the radiographic examination, almost without exception superior to the clinical examination, is characterized by remarkable consistency under all circumstances, excepting only the case of anterior teeth in which many restorations are present.
5. There appear to be no circumstances in which either examination can be omitted without the probability of a significant, if at times small percentage of proximal decays being overlooked. Each technique by itself gives an inadequate examination,

the findings from each being complementary. This applies with equal force to both anterior and posterior regions of the mouth.

To repeat:—In the pursuit of successful control of proximal caries, no cavity must be permitted to extend untreated; we can afford to lose no chances for detecting and treating beginning lesions. Considered in conjunction with this principle, the information presented confirms an acknowledged need for routine and very painstaking physical examination of the teeth. At the same time it is surely a clear direction that oral health service will in general be handicapped beyond promise of success without the universal adoption of a full interproximal radiographic examination.

WHAT INTERPROXIMAL RADIOGRAPHY OFFERS

Fundamentally the findings from radiographic examination of proximal surfaces offers, (1) opportunity for maintenance of the deciduous dentition intact until the time for its normal physiologic shedding, with an accompanying reduction in malocclusions; (2) opportunity to combat caries to such an extent that very nearly every individual can be assured of reaching adult age with a complete and healthy dentition largely through (3) opportunity for the very minimal operative interference with tooth structure in treatment designed to control the carious process, and (4) partly in consequence of the last factor, opportunity for the complete elimination of controversial procedures grouped under the term pulp therapy, together with a proportionate elimination of cause for periapical infections, save only in cases of accidental injury to teeth. These opportunities depend without exception upon the earliest diagnosis of carious lesions.

To these considerations there should be added other specific indications for the routine use of interproximal radiography:

5. To show the extent and relations of proximal cavities, offering valuable assistance in treatment-planning through accuracy of diagnosis not only of the presence of carious lesions, but of their extent and possible proximity to the pulp; facility in operative measures through the provision of almost literally a plan of the cavity before it is prepared; and a reliable indication upon which to base estimates of fees.
6. Economic saving to the patient through the elimination of expense involved in larger restorations, pulp therapy, avoidable extraction of teeth, the construction of crowns, bridgework and partial dentures.
7. Elimination of discomfort and suffering for the patient through "toothaches" for which undiagnosed cavities are so often responsible, and the consequent elimination of many unexpected and embarrassing calls on the time of the operator.
8. Indication of the location and extent of the pulp cavity, and calcific changes, e.g., the presence of pulpstones.
9. Subgingival calculus and marginal loss of the alveolar process is well shown on interproximal films.
10. The stage of eruption of succedaneous teeth, and the presence of the impacted teeth, may be indicated.
11. Invaluable information on existing restorations, whether done by present or previous operators—gingival overhangs—recurrent caries beneath restorations—denture repair processes—defective restorations—pulp chamber fillings—depth of existing restorations—poor contact relations—the presence or absence of lining materials beneath silicate restorations—check up at completion of treatment.

Limiting the possibilities of the interproximal radiographic examination are only the physical features re-

sulting from malposed teeth, the presence of restorations in teeth, and the factor of poor technique at any stage in radiography.

TECHNIQUE IN INTERPROXIMAL RADIOGRAPHY

Interproximal radiographic examination of posterior teeth is a very simple technique using "bite-wing" films. The area to be included should include the distal surfaces of the cuspid teeth anteriorly, and at least the mesial half of the most posterior teeth. For accurate diagnosis, two films are desirable on each side of the mouth once second and third molar teeth are present. The use of two adapted standard-size films will give much better results than are possible with the use of a single longer film. The latter type makes it impossible to secure a clear view through all proximal spaces at one exposure, due to the divergence of radiation from the small target spot; and no single exposure time can be suitable for bicuspid and molar regions simultaneously, where there is such variation in transverse dimension of tooth crowns. The exposure time for each film should be approximately 20% longer than that for periapical examination of a given region, the time for the latter being based on requirements for adequate reproduction of bone structure less radiographically dense than tooth crown. An average downward direction of the rays of about plus 8 degrees is advisable, with direction in the horizontal plane at right angles to an imaginary line through the buccal cusps of posterior teeth. Small films such as the Eastman #0, suitably adapted, are ideal for deciduous posterior teeth. Adapted standard size periapical films are used for adults, especially to take advantage of film packets containing pairs of films permitting a duplicate file.

Radiographic examination for proximal caries cannot justifiably be confined to posterior teeth, though

this is widely customary. In my hands the "bite-wing" film types which are available prove unsatisfactory for examination of anterior regions, and there is no acceptable alternative but to make use of a regular periapical technique. For optimum results this calls for the use of small size (#0) films which are narrower, and at the University of Alberta, we have completely discontinued the use of standard size films for examination of teeth located in the curved segment of the arch (i.e. first bicuspid to first bicuspid inclusive). More exposures are entailed but these are amply justified by the results. A minimum examination for anterior proximal surfaces would call for five films; complete coverage of the region may require ten films as used in periapical examination. Fortunately exposure technique may be so simplified as to become almost automatic, through use of a mechanical device which serves at once to assure steady holding with correct film placement, and to calculate appropriate vertical and horizontal angulations for the direction of radiation.

Films carrying either regular or medium speed emulsions give good results; image quality and definition so vital in interpretation of interproximal radiographs must suffer quite seriously if fast films or rapid processing solutions are utilized. It is probable that image definition can be improved by the use of an extension on the cone of the machine to give increased target-film distance, and experiment with this technique is currently being made. Rubber surgical gloves should be used throughout processing and mounting to prevent finger-marking of films. And above all, an effective standardization of exposure and processing techniques will prove the only way to obtain consistently fine results.

INTERPRETATION

Films must be mounted and studied without the interposition of clear or

diffused celluloid or plastic backing surfaces, i.e. using open-window mounts, or mounting the films between clear, clean glass slides. Another prerequisite for accurate interpretation is an even and adequate light source free from defects—ideally a view box fronted by flawless flashed opal glass kept spotlessly clean. A good reading glass of approximately 4X magnification is indispensable. And withal, painstaking care in the study of films cannot be overemphasized, for some cavities, not always small ones, can be overlooked only too readily.

Given films of fine quality and definition which visualize clearly through interproximal spaces so that adjacent teeth do not appear to overlap, virgin proximal cavities will show infallibly from their earliest stages. This is in contrast to the periapical examinations for which radiographic surveys are made, in which the interpretation of findings is often far from clear; yet paradoxically some practitioners have radiographic equipment in their offices which they use solely for periapical examinations. Carious lesions will be obscured by interposed metallic restorations or radiopaque cement base materials. They are difficult to differentiate from radiolucent silicate restorations, unless the latter have associated lining materials radiopaque in character. Carious lesions call for experience in differentiation from some sedative paste materials such as zinc-oxide-eugenol used as sub-linings for deep restorations. Pit or fissure and gingival third types of cavities should also be searched for on interproximal films. While these may not be radiographically apparent in their earlier stages, there are numerous

instances in which pit or fissure caries may be first diagnosed radiographically, and instances in which gingival third cavities could otherwise be overlooked in clinical examination for reason of an unusual location, e.g. lingually on mandibular posterior teeth, within the gingival crevice. In every case, the findings of the physical examination should be available when studying radiographs, to facilitate differential diagnosis of radiographic appearance such as the images cast by silicate cement fillings, and to permit correlation of the radiographic findings with those of the physical examination it is designed to complement.

CONCLUSION

Under almost any circumstances in which natural teeth are present, radiographic study of all their proximal surfaces must be viewed as an indispensable routine. Radiographic interproximal examination must be accepted as being of equal moment with the physical examination which it complements so ably. But until its possibilities are fully recognized and the technique accepted and used fully and effectively as an integral part of diagnostic procedure, the mouths of many dental patients must inevitably continue to reflect on the sincerity of our ideals of professional service.

BIBLIOGRAPHY

- Barr John Haddin — N.Z.D.J. 41 : 89 (July 1945)
 Bodmer Eugene — Illinois D. J. 9 : 8 (1940)
 Collins, Jensen and Becks — J.A.D.A. 29 : 1772 (1942)
 Dunning J. M. and Ferguson S. W. — U.S. Nav. M. Bul. 46 : 83 (1946)
 Main L. R. — J.A.D.A. 29 : 2174 (1942)
 Robertson J. C. — Dental Record LXIV : 35 (1944)
 Smith Russell K. — J.A.D.A. 29 : 796 (1942)
 Sweet A. Porter S. — J.A.D.A. 31 : 1667 (1944)
 White D. P. — U.S. Nav. M. Bul. 43 : 901 (1944)

*"Happy be
 With such a mother! faith in womankind
 Beats with his blood, and trust in all things high
 Comes easy to him; and tho' he trip and fall,
 He shall not bind his soul with clay."*

—Tennyson

CONVERTING THE DENTAL CHAIR INTO AN OPERATING TABLE

by C. CLAYTON BOURNE, D.D.S., Montreal, Quebec

Dentists who do considerable work under general anaesthesia may be interested in this plan for converting their dental chair into a plane surfaced operating table. This applies only to those chairs that have readily removable arms or arms that fold out of the way. Requisites are a piece of plywood six feet long and at least 18 inches wide and $\frac{3}{4}$ inch thick, together with three strong webbing straps about 18 inches long.

Remove or lower the arms of the chair; lower the back to nearly horizontal, and collapse to its lowest position. Place the plywood on the chair with its middle close to the middle of the seat of the chair. Mark on the ply-

wood the position of the base of the headrest and the two arms that join the back and seat. Cut slots for the webbing straps at these three places. Have the plywood sanded and painted. I had a cushion made of two thicknesses of carpet inside a plastic covering. When not in use, the cushion and top stand behind a door.

To use, the back of the chair is lowered and collapsed, the arms are removed, the webbing straps are attached and the back expanded until considerable tension is on the straps. This provides an operating surface that may be raised or lowered, tilted or turned as readily as the more expensive operating tables.

ANNOUNCEMENT

Post-Graduate and Graduate Courses in Orthodontics Université de Montréal

1. A ten-day post-graduate course on the fundamental and technical instructions on the Johnson Twin-Wire Mechanism to be given at the Faculty of Dental Surgery, Université de Montréal, January 21-31, 1948. This course will be given by Dr. Joseph E. Johnson and associates, Drs. Henry U. Barber, Jr., Joseph D. Eby, Clare K. Madden and Franklin A. Squires. A series of special lectures by Dr. Leuman M. Waugh on biologic fundamentals pertaining to Orthodontics, as applicable to the Twin-Wire Mechanism, will be integrated with the course. Orthodontists only are eligible, lectures will be given in the English language and the fee for the course is \$125.00.

2. A graduate course in Orthodontics, of one year duration, which will begin on September 8, 1948. As the number of candidates is limited to ten, the applications should be sent in as soon as possible for the coming year. This one-year course is given in the English language. Any information regarding these courses and all applications should be made to Dr. Paul Geoffrion, Vice-Dean, Head of Orthodontic Department, Université de Montréal, 2900, boul. du Mont-Royal, Montreal 26.

"Difficulties are things that show what men are."—Epictetus.

Learn that heavenly chemistry of extracting some spiritual gain out of earthly things.

—T. Boston.

ANNOUNCEMENTS

Post-Graduate Course in Periodontology

The Faculty of Dentistry, University of Toronto, announces a one-week post-graduate course in Periodontology to be given May 3 to 8, 1948.

All who are interested are invited to address an inquiry to the Dean, Faculty of Dentistry, 230 College St., Toronto 2B.

Post-Graduate Course at Tufts

Tufts College Dental School announces the following post-graduate and graduate courses in Periodontology:

Refresher Course I—Each Monday for the twelve weeks beginning January 19 to April 12.

Refresher Course II—Two weeks, full-time beginning June 7 through June 18.

Postgraduate Course III—Sixteen weeks, full-time leading to a certificate.

Graduate Course IV—Thirty-two weeks, full-time leading to the master of science degree for qualified students.

For further information write Dr. J. T. O'Rourke, Director, Division of Graduate & Post-graduate Studies, Tufts College Dental School, 416 Huntington Avenue, Boston 15, Massachusetts.

Midwinter Clinic of Chicago Dental Society

The 1948 Midwinter Meeting of this Society will be held February 9-12 at the Stevens Hotel.

"Howe'er it be, it seems to me,

'Tis only noble to be good.

Kind hearts are more than coronets,

And simple faith than Norman blood."

—Tennyson

In the event the plan approved by the American Dental Association which calls for two and three years' additional study and experience as a requirement for certification of an orthodontic specialist goes into effect, the question quickly arises as to where such training is to be available in sufficient quantity to fill the present demand. It is plain, however, that such a plan would consume so much time and expense that the present demand for orthodontic training would reverse itself and the urge would be limited after a few years.

To use the current popular phrase quoted in the news of the building trades, orthodontic education leading to certification will, under such circumstances, soon "price itself out of the market," and some other way, no doubt, will be found to supply the need. That is not good because specialists can still specialize even though they do not qualify under specialty boards. "Where there is a will, there is a way" will be quickly demonstrated to apply.—From Editorial, American Journal of Ortho. and Oral Surg., July, 1947.

The Forum

COMMON TECHNIQUES, PROCEDURES AND PROBLEMS OF ORAL SURGERY

by WARREN RAND SCHRAM, D.D.S.

Associate Professor of Oral Surgery, Northwestern University
Dental School, Chicago, Illinois.

Conclusions of paper in North-West. Dent. July, 1947.

I should like to enumerate certain factors in the practice of oral surgery which, to me, are of paramount importance.

1. Accurate observation of the patient and the obtaining of a careful history before the operation is begun.
2. An understanding of the behaviour of bone in its reaction to bacterial invasion and surgical trauma.
3. The use of good surgical judgment

when dealing with acute infections.

4. The induction of anaesthesia which will permit unhurried, careful surgical procedure.
5. The use of radiographs and clinical observation, to permit careful planning of the operation.
6. Sharp dissection and definite procedures calculated to leave the tissues in the best possible condition following the operation.

SCIENCE AND THE PUBLIC

by R. W. GERARD

Department of Physiology, The University of Chicago

Condensed from Science, July 11, 1947.

The existing relations between science and the public can still be summed up largely in the anecdote used by Lord Rayleigh a decade ago. The great Australian transcontinental railway had been completed, and the first train was being dispatched at a gala ceremony. At the climatic moment, the passengers waved, the crowd cheered, the signal was given, and the locomotive proudly started off—leaving the train standing. Someone had forgotten to couple the engine to the cars.

True, in the interval the public has become far more aware of science and scientists of the public, thanks largely to the drama—or should I say tragedy?—of the atom bomb. But this awareness, on the public side, is in some ways even worse than indifference, for the people think of science more and

more as a sort of black magic threatening their traditions continually and likely to blow them up momentarily. Even at best, science to them is the creator of comfort-improving gadgets or of miracle drugs, never an objective attitude and a rational attack on problems. Yet it is the attitude and method of science which can save society, even more surely than some products of science can destroy it.

The engine of science is running, but if it does not pull the public passengers with it, it will not long be stoked. The coupling must be closed by means of the media of mass communication. The technological devices for this are now abundantly available.

First, what is the public entitled to, and what is it not entitled to, in the way of science news? It is not en-

titled to sensational uncritical, and often partisan reports on results or conclusions which have not yet run the normal gamut of scientific testing. The validity of research findings should not be argued before the public as jury. The mass audience of magazine or newspaper, movie or radio, does not have, and cannot possibly have, the knowledge which entitles it to make a judgment—nor do the writers or producers, except in rare cases where they have themselves had extensive experience as active scientists. Only the collective and slowly accruing labours of the actual workers in a field can render a useful decision.

Presumably the public is entitled to know of penicillin as soon as laboratory and clinical trials have convinced those working with it, as a group, that it has the virtues anticipated. Early publication may still cause great anguish to investigators flooded by appeals for unavailable material and to relatives believing their loved one is dying in the presence of succour, but it may also arouse great action and accelerate use and speed advance. Publicity is essential in health campaigns against tuberculosis, cancer and the like.

The case is quite different when the public is involved not merely as a spectator or student but as actor or judge. When a popular monthly magazine published a glowing account of a fool-proof treatment of ringworm, by a mixture of 50 per cent camphor and 50 per cent carbolic acid, it created an epidemic of severe skin burns and performed a disservice to everyone except possibly some financially low dermatologists. On what evidence were such claims publicized? Had the magazine or the author the scientific or moral right to decide that the claims of a particular experimenter were sound?

As a final example of this point I merely mention the publicity accorded Sister Kenny and her treatment for infantile paralysis. The most effective treatment of poliomyelitis will be determined by no popular vote or movie producer but by continued scientific

investigation and clinical experience. Science, medicine, and the public alike suffer when any other approach is attempted. On the other hand, when answers have become clear, such motion pictures as those presenting the lives of the Curies, Ehrlich, and Pasteur offer invaluable vehicles for education of the public.

If we think of science as an exciting sport, as indeed it is, then the final score of each game is certainly for the public. So also is the inning-by-inning progress, provided it is clearly recognized by all as just a progress report and provided the reporter has some official or semi-official authority for his statements. Still better, if the public is taught some of the rules of the game, it can follow with excitement a play-by-play account. It must never be placed in the role of umpire. Also, it must learn to respect the expertness of the players. This last is a most critical point.

The egalitarian philosophy of America proclaims that all men are created equal, and, as the Irishman said, "One man is as good as another, or maybe a little bit better." In discarding the tradition of an aristocracy by birth we have thrown out the very notion of quality. Now, plainly, some men are far better than others, for given functions, by hereditary endowments or acquired experience, and the public recognizes this well enough where it is familiar with the situation. It knows that a special combination of endowment and training is needed to make a Joe Louis, a Babe Ruth, or even a Padewski, and it would rightly scoff at a professor of sociology who pontificated about pugilism. But the reverse is not true. The public does not know sufficient about scientific evidence and procedure to recognize as ludicrous the anthropological antics of Bilbo, the biological blather of Irene Castle ex-McLaughlin, or the chemical confusion of most literary atom bombardiers. The public does not know its scientific A.B.C.'s—and it doesn't know that it doesn't know! Even at the height of

scientific prestige, in a technological war, America alone drafted its science students. We cannot expect the layman to surmount his ignorance in technical matters, but we can expect him to recognize it. We must teach him the weight and value of a scientist's opinion where scientific evidence is involved. A democracy that does not respect expertness in the intellectual area, as it does

in the sports arena, is bound for extinction in an age of technology!

What may be re-emphasized now is that science, communication media, and the public are inextricably bound to each other. They must not merely interact, but they must interact usefully. They are part of a whole society. For purely selfish reasons, each must minister to the needs of the others, for only so can it survive.

PRACTICE MANAGEMENT AND OTHER FINANCIAL CONSIDERATIONS OF THE DENTIST

by Dr. C. H. KENDALL, Milwaukee, Wisconsin

Condensed from Minneapolis Dist. D. Jour., Sep. 1947.

Dr. C. H. Kendall, besides being a successful dentist and a past president of his Dental Society is a successful business man, having been for seven years a bank president and for seventeen years a bank director. As an advisor and authority in the field of "financial" problems of a dentist, his reputation is well established.

CREDIT REPORTS

Get a credit rating on every patient and be sure that it is marked properly on the chart. Best results come from a credit bureau which in turn gets information from the department stores and other places where people spend their money. If your patient's credit report is A-1, you haven't a care in the world. Never say your patient pays everyone else except you. Leopards do not change their spots over night.

Tell patients that we close our books on the 28th; we will have a statement in their home on the first of the month and expect to have the check before the 10th. If there is any other way the patients would rather handle it, just tell the secretary and let her try to arrange it.

A man who owes you money builds up dislike for you. Loans to the dentist's patient should be handled by the bank for 6 per cent and if it is signed without recourse, add 2 per cent—always have loans without re-

course . . . let the patient pay it, not the dentist. Department stores lose less than $\frac{1}{2}$ of 1 per cent each year on their accounts. How do you suppose they do it?

When the credit rating is poor, slow, or unsatisfactory set up a definite plan of payment with dates, proceed with services according to your plan. When payments stop, service should stop. Be cautious of budget accounts. Don't rely upon a judgment note. They are no good unless the maker is good. With your A-1 accounts forget your budget plan.

If an account is six months old, without an intervening payment, on an average it is not worth over 40 cents on the dollar. The thing to do is to stop those accounts at the start. Get one-half down and the balance on a definite date. That gives the patient something to come and go on—"balance on definite date" as work progresses. It gives you an opportunity to inquire about the patient's payment habits, and, if he is a poor credit risk, you can delay the work. When those dates pass by and the patient does not pay, be sure to discontinue your services. Keep your services even with the payment on questionable accounts.

MOTIVATING PATIENTS

The patient's first impression of your office is made in a split fraction

of a second and it may take years to blot it out—so make sure your waiting room and everything else is immaculately clean.

Patient's are people who cross our threshold, their minds work exactly like ours. If you say, "Mrs. Jones, this is what I think you ought to do," chances are she will say "That's all right Doctor, whatever you advise is o.k."

A dental office should have a certain quiet dignity that sets it apart from commercial ventures.

Whenever urgent service is required be co-operative. For goodness sake, take care of the toothache as soon as you can, take care of emergencies as soon as you can. Always thank a new patient, "very glad to have you come in, Mrs. Jones." If we get too many patients, be a little more selective. Always be gracious. Whatever you do, do it graciously.

YOUR PROFIT WILL BUILD UP YOUR PERSONAL BUDGET

You can figure the number of hours worked during the year, divide your total of office overhead plus profit or

personal budget by the number of hours, that will give you an idea how much you will have to take in; then you can start playing the universal game of "Beating the Budget."

This formula does not tell you that you should get \$8.33 for each hour but it does tell you how much you must take in each day, each week, or each month, if you want to meet your budget.

If patients think fees are high, make a comparison if you can with some other personal service such as cigarettes or a haircut or beauty treatments for a period of ten years. What does it cost to cut your hair and just throw it away over a period of ten years?

If you have someone with you who is not doing well, be courteous with them. Tell them that you would like to have them stay with you another month or so until she has a chance to get herself another position.

You must have someone who is interested—someone who can do justice to your particular type of work. Be gracious, honest and truthful about the matter.

NITROUS OXIDE-SODIUM PENTOTHAL ANAESTHESIA FOR ORAL SURGERY

by HUNTER L. HARANG, D.D.S., New Orleans, La.

Summary of paper in Current Researches in Anaesthesia and Analgesia Oct., 1947.

No other anaesthetic agent or combination of agents produces a more rapid and pleasant induction of anaesthesia for oral surgery than the combination of pentothal and nitrous oxide. Sodium pentothal as a hypnotic agent produces a normal sleep with no apprehension or excitement stage. There is no pharmacologic or physiologic manifestation to contraindicate sodium pentothal when administered in small dosage of low percentage. It is noted that there are less physiologic changes in the body from nitrous oxide

than from any other gas. Nitrous oxide has an anaesthetic potency of 15 per cent and when the metabolism is further lowered by the use of morphine and sodium pentothal, it can carry anaesthesia to below the middle of the first plane. When positive pressure is applied, it is capable of producing a potency of 20 per cent. The combination of quick elimination from body tissues with normal and speedy postoperative recovery, makes nitrous oxide with pentothal a safe, popular and pleasant anaesthetic combination.

THE UTILIZATION OF AUXILIARY PERSONNEL IN DENTISTRY

by D. W. BROCK, St. Louis, Mo.

Condensed from Bulletin of St. Louis D. Soc.

The future of dentistry in my opinion is very definitely dependent upon the use of auxiliary personnel. Since we accept the concept of our profession as a health service, then we must likewise accept the moral responsibility of extending that service to all and, since economics enters largely into the picture, it is logical to conclude that the use of less expensive but competent personnel will afford adequate service at a lower cost to a greater number of recipients.

The two-chair office proves to be practical and increases output without much increase in operative effort by reducing delay in sequence of patients and care of emergencies. The dental assistant has undergone minute inspection, her possibilities considered and her employment as essential to the dental office, advocated. The American Dental Association has urged the training of auxiliary personnel by the dental schools and their use by the profession.

The commercial dental laboratory, for many years the subject of abuse, but nevertheless to some extent used by practically all in general practice, has become the target for constructive criticism and study.

The duties of the dental hygienist conform to the type of position open to her talents.

Present indications are that the hygienist will assume an important place in the future of public health and industrial dentistry.

My concern is chiefly with the future of private practice, since I am convinced that it offers the most acceptable means of conveying to the public the greatest benefit to be derived from our profession. I see in the future a well-equipped office in which the dentist will maintain an atmosphere of professional dignity and personal independence; where the dental assistant, the hygienist and the

technician will perform as satellites within his professional orbit in a unified and harmonious effort that will stimulate interest and confidence in the patient and will validate our claims to a high type of health service.

Gone are the days of gentle and leisurely practice when life moved to a slow and even tenor. The tempo has changed: social consciousness has made us conform to a new pattern and society will either condemn or approve of the change. The era of the lowly paid dental assistant is over and in the future her qualifications, as well as her usefulness will improve because she represents the first step in the building of office personnel, a step that should be taken as soon as possible by the young dentist. The same can be said of the dental assistant as was said of the hygienist in 1931 by Dr. Ralph R. Byrnes, Dean, Atlanta-Southern Dental College, "She conserves the dentist's time. She adds dignity and tone to his office. She is a definite practice builder."

Contact with the dental laboratory technician must eventually be made by the dentist.

The "unit" plan of dental education in which the dental assistant, the technician, the hygienist and the dentist are trained simultaneously in the dental college, points the way to the future pattern of dental practice more clearly than any conjecture. This plan is now operating at Meharry Dental College. In this "unit" the elements of dental service are brought into closest contact during their formative period and a spirit of mutual understanding and interdependence is established that will undoubtedly continue after graduation from the college. In addition to establishing the components on a firm professional and semi-professional basis, it will dignify their lines of endeavour.

Can there be any doubt as to the

future use of auxiliary personnel in dentistry? In my opinion there cannot be. The dental colleges will estab-

lish leadership and the progressives of the profession will immediately seize the opportunity.

THE LIMITS OF DENTAL PRACTICE

(FROM OUR MEDICO-LEGAL CORRESPONDENT)

Reprinted from British Medical Journal, June 28, 1947, by permission.

Dentistry, unlike medicine, is restricted to registered practitioners. The Dentists Act, 1921, section 1, prohibits the performance of any such operation and the giving of any such treatment, advice, or attendance as is usually performed or given by dentists, and also lays down that any person who performs any operation, or gives any treatment, advice, or attendance in connexion with the fitting, insertion, or fixing of artificial teeth is deemed to practise dentistry. A shop assistant, a dental mechanic who was not on the Dentists Register, told a customer that her teeth were all the same size and looked too artificial and could be improved. She suggested that the customer should exchange the teeth, and offered to supply six plastic teeth for three guineas and gold filling for other teeth to take away the artificial look. The Dental Board prosecuted her for unlawfully practising dentistry and her employers for aiding and abetting her. The Southport justices found that she had not practised dentistry, and the Board appealed to the High Court.

The Board admitted that a dental mechanic may, without committing any offence, repair a denture which is brought to him. Lord Goddard, Lord Chief Justice, said that it obviously followed that he may make a repair which involves replacement of teeth affixed to the denture. There is no reference to a "denture" in the section. He could not think that because a dental mechanic said to a customer that her looks could be improved if her teeth were not all the same size and offered, not to make a denture, not to interfere with the existing denture, but to replace teeth on the denture with others of a different colour or size, the

mechanic was infringing on the section. Mr. Justice Atkinson recalled a case in which an unregistered person had made and fitted a set of teeth and sued for their value; the court had held that for an infringement of the law as it then was the operation, attendance, or advice must be directed to the condition of the mouth and to the treatment of the living person; the law was not broken by something done upon a set of false teeth. Since that decision the definition of the offence had been enlarged, but the meaning of "operation" and "advice" had not been extended. If Parliament had intended to make it an offence to work on an existing denture, it would have put appropriate words in the Act. The words "in connexion with the fitting, insertion, or fixing of artificial teeth" meant the doing of these things in connexion with the mouth itself. Merely altering an existing denture was not covered by the section. Whether advice was given was a question of fact in each case. The shop assistant had merely suggested that there should be an alteration in the denture, and there was evidence to justify the conclusion of the magistrate that she had not given advice. Mr. Justice Oliver, agreeing, said that he would have come to a different conclusion if the magistrates had found that any part of the fitting to the patient's mouth was to be affected by the advice given, but they had not.

The line limiting dental practice therefore seems to lie at the limit of the patient's person. Presumably an action which requires the patient for its performance is dental practice, but one which merely requires the denture is not.



Editor: M. H. GARVIN, Winnipeg
Assistant Editor: T. R. MARSHALL, Toronto

Associate Editors:

PRINCE EDWARD ISLAND:
D. T. Waye, Charlottetown

QUEBEC:
E. T. Bourke, Montreal

ALBERTA:
H. L. Freeland, Calgary

NOVA SCOTIA:
Warren C. Oxner, Halifax

ONTARIO:
T. R. Marshall, Toronto

SASKATCHEWAN:
L. D. Haselton, Saskatoon

NEW BRUNSWICK:
John E. Edgcombe, Saint John

MANITOBA:
J. F. Morrison, Winnipeg

BRITISH COLUMBIA:
H. M. Cline, Vancouver

TIME CHANGES

A writer summarizes that period of life existent in the time of the Judges as "Every man did that which was right in his own eyes. There was no king in those days. Political chaos, religious apostasy, social corruption, moral bankruptcy—these were the characteristics of a turbulent brutish age."

Today our hearts go out to the poor ordinary folk, so helpful and generous to one another, how capable of progress and improvement. So if we are to obtain true glory and our rightful professional place in the world, we must take these people by the hand and lead them into a condition of dental health. This is the prize which glitters before the dentist with a vision and such a man is Dr. W. G. Campbell, Director of Dental Services, Department of Health and Public Welfare, in the province of Manitoba. Dr. Campbell, having been appointed to this position by the provincial government, first of all obtained his Master of Public Health degree from the University of Michigan and is now ready to go to work on the problem of improving the dental health of the Manitoba citizen wherever he or she may reside.

The first step towards the ultimate goal is to make adequate dental service available in areas within one hundred miles distance from the larger populated centres and in this connection, much interest is being shown in the new Manitoba Health Services Act, whereby each community is responsible for its own health activities and action. Part IV of the Act has to do with hospitals and it is planned that doctors and dentists should be allowed

space in these new hospitals in order to conduct a private practice in a modern building with full technical support without reduplication.

The decision to construct a hospital is the result of a general referendum by the tax payers of the municipality. Provision is always made in the referendum for office space for those who might wish to practice in the building. The Hospital Council of Manitoba approves of the plan for construction and determines that adequate office space is provided for the professions.

Dr. Campbell has pointed out that each community has certain individual characteristics and that no one solution is satisfactory to every locality and that the rural dentists should study these problems. It is further pointed out that hospital accommodation has the following advantages as compared with practising in private offices. Under the hospital plan x-ray equipment will be provided; water and sewage facilities will be routine; laboratory tests and sterilization of supplies will also be routine; operating rooms with general anaesthetic also medical supplies and drugs will be readily available; rental arrangements can be easily made with the Hospital Board; general maintenance and heating repairs can be arranged with the plant staff; the location will be easily available to the public; dentistry will be part of a health unit with stimulating professional contacts; and medical consultation will be easily available. These centres should prove very attractive to many of our younger dentists.

It has also been suggested that some of our well established city dentists plan to go into outlying districts for several days, from time to time, in order to give some relief to those requiring urgent dental attention. This suggestion is being considered.

The fact remains that some solution must be found for these pressing problems and if the dental profession does not solve them, some other groups will attempt to do so.

Neither are our urban centres free from dental problems. Of Canada's 2,501,809 income tax payers, 69 per cent have incomes below \$2,000.00 a year. Only 542,825 receive \$2,000.00 to \$3,000.00 and only 17,974 are in a bracket above \$10,000.00. What is the solution for giving the twelve million people of Canada adequate dental health?

This is no time to glorify the past but it is the time to get busy in trying to solve the problems still to be solved. These are efforts also, the direction of which could well be undertaken by the Canadian Dental Association if we had the full time personnel to direct the project. I say full time because such studies require a great deal of study and investigation and a thorough knowledge of the need, for it is fallacious to assume that work of this kind can be directed from higher levels by individuals who are out of contact with operational details, which implies that detailed development of policies and procedures must be initiated at operational levels.

Times are changing. The steam engine was invented in 1698 and

improvements are still being made. Yet with all these refinements it is still very inefficient and probably, before long, it will be discarded entirely because scientific achievement will make it obsolete. The price of progress is hard work. If we want better dental service for humanity, we must work hard towards that goal and in the end we will succeed.

M. H. G.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

All India Dental Conference

Invitation has been extended to the members of the Canadian Dental Association to attend the Third All India Dental Conference to be held February 19-22 in Bombay, India.

Saskatchewan and New Brunswick Raise Per Capita Grant

Both Saskatchewan and New Brunswick have taken official action raising the per capita grants for their provinces to the C.D.A. The grant in each case is in future to be eight dollars. Six provinces have not raised the grant to this amount. (One of which is dependent on others doing likewise). One province has raised the grant to ten dollars.

Publicity

The Canadian Press Clipping service collected 111 items which were carried in the daily press, from Halifax to Victoria, respecting the Annual Meeting at Digby last June.

Manitoba Government Creates a Dental Division

The Department of Health & Public Welfare, Province of Manitoba, has recently created a Dentistry Section in the Division of Health Services. Dr. W. G. Campbell, who has recently returned from a course in Public Health at the University of Michigan, has been appointed Director of the Bureau.

The implementation of the Manitoba Health Services Act is now in various stages of formation and operation. To date, dentistry has been considered, but not included, in the many services provided under the legislation. The extent to which dental services can be made available will have to be determined and the

dental profession of Manitoba is asked to co-operate in reaching a solution.

The intention is to create and maintain a program of Preventive Dentistry. It is hoped that it will be possible to extend preventive dental care for the children of the Province.

President's Western Tour

The President, accompanied by the Secretary, made official visits to the larger dental societies in Western Canada during the month of October.

President Carver addressed each meeting upon the affairs of the Association. The meetings were well attended and a great deal of interest in the work of the Association was shown.

Committee on Publications

The Committee on Publications met, with the Editors, in Montreal, October 23, 1947. In summary the following business was transacted:

1. A new cover design was adopted to begin with the January issue 1948.
2. In order to provide for the increasing amount of text, decision was made to publish larger issues quarterly in the future.
3. The date of issue has given the committee concern. Explanation was made by the publishers that the difficulty of securing equipment and other matters beyond their control had made it impossible to bring the Journal out on schedule but it was hoped that these difficulties would be overcome in the near future.
4. The drastic rise of publishing costs is a matter of concern to the committee.
5. In addition, minor points were discussed respecting the arrangement of text in the Journal.

1948 Convention

The Program Committee for the 1948 Convention at Murray Bay was formed in September and has been actively engaged in making arrangements. The membership of the Committee is as follows:

COMITE D'ORGANISATION DU CONGRES DE L'ASSOCIATION DENTAIRE CANADIENNE	
Président	Docteur Gustave Ratté
Vice-Président	Docteur Remy Langlois
Secrétaire	Docteur Viger Plamondon
Trésorier	Docteur Rodolphe Talbot
Conférences et Cliniques	Docteur Wilfrid Leahy
(Essays & Table Clinics).....	Docteur Philippe Harnel
Receptions et Amusements	Docteur Remy Langlois
	Docteur Jacques Samson
	Docteur Jules Hamel
	Docteur Ls. Ph. Gariépy
Transport	Docteur Lucien Beaumont
Exposants	Docteur Bourdon
(Exhibits)	Docteur Albert Moisan
Programme	Docteur Viger Plamondon
Publicité	Docteur Paul Lajeunesse
Inscription	Docteur Louis Bernier
(Registering)	
Logement	Docteur Antonio Reny
(Housing)	
Announcements respecting the Convention will appear regularly in the Journal.	
211 Huron Street, Toronto, November 6, 1947.	

Conference on Arthritis and Rheumatism

A conference on Arthritis and Rheumatism met at Ottawa on October 13-14, 1947, in the Department of National Health and Welfare. As representative of the Canadian Dental Association, Dr. D. P. Mowry of Montreal attended. The conference was under the Chairmanship of the Hon. Paul Martin, Minister of National Health and Welfare.

At this conference a review was made of the present knowledge in respect to the number of people afflicted with the disease (possibly 200) known under the general term rheumatism. The purpose of the conference was to establish an organization to cope with the problem. The following recommendations were adopted:

"Recognizing that rheumatic disease in its various forms causes grave suffering and loss to the Canadian people, and recognizing that present knowledge in regard to its diagnosis and treatment is inadequately applied, and recognizing that more knowledge regarding its origin, prevention and treatment is urgently needed, be it therefore resolved:

That there be established The Canadian Arthritic and Rheumatic Society.

The objectives of the Society shall be:—To promote furtherance of

- 1) Diagnosis
- 2) Treatment
- 3) Prevention
- 4) Training and education of professional personnel (including fellowships, etc.)
- 5) Research
- 6) Public education
- 7) The raising of funds

AND to do such other things as will promote the aims and objects of the Society and to cooperate with other appropriate bodies.

AND be it further resolved that in promoting the foregoing objectives advice be taken from competent authorities.

Membership of the Society shall include individuals or organized bodies."

H. M. Cline Appointed B.C. Representative

Notification has been received from the Registrar of the College of Dental Surgeons of British Columbia as follows:

"Harold MacKechnie Cline, Esq., D.D.S., whose office address is 1428 Medical-Dental Building, Vancouver, B.C., is now and is hereby certified as the accredited representative of the College of Dental Surgeons of British Columbia on the Board of Governors of the Canadian Dental Association."

Dentists Among Displaced Persons' Camps in Europe

Considerable pressure is being exerted to open the way for dentists to come to Canada who are among the Displaced Persons in European Camps. Evidence as to the number of these dentists has been evinced by the great number of communications of enquiry received from them at C.D.A. Headquarters. Recently, it has been stated that 11 per cent of Displaced Persons in these camps are professional people. In view of the shortage of

dental personnel in rural areas it has been said in some quarters that the obvious solution is to bring these dentists to Canada.

On several occasions, during recent weeks, the C.D.A. has been requested to make statement upon the matter. According to our experience, after examining the credentials of many of these dentists, their education is not on a parity with that demanded in Canada. We do not believe these dentists are trained to

render the dental service expected by the Canadian public. Canadian Dental Schools are now filled to capacity and not able to admit additional numbers, which would be necessary to equip these dentists for practice in Canada.

In general the stand has been taken that these men must meet the requirements as required in each province by the Provincial Dental Boards, or in other words the same requirements as demanded of Canadian students.

NEWS FROM THE PROVINCES

MANITOBA

Manitoba Dental Association

In a province like Manitoba where more than half of the residents are in the rural areas and 77 per cent of the dentists are located in Winnipeg the 23 per cent who serve the rural areas are few and far between. Too many of the small towns and villages are without any dental service whatever except that which is supplied by the itinerant dentist. The dentist who travelled from village to village regularly once every few weeks over as long a period as Dr. C. H. Weagant of Winnipeg, who recently passed away deserves honourable mention in this world and a reward in the next. He had been in practice since 1902 until the last year or so and for many years was a sidesman at Holy Trinity Church where he was as much a fixture as the Rector or the Sexton.

Winnipeg Dental Society

Another dentist who has a career which deserves honourable mention is Dr. W. C. McBride, of Detroit, Michigan, Specialist in Children's Dentistry. He visited Winnipeg almost eighteen years ago under the auspices of the Manitoba Dental Association and made a return visit November 10, being brought here by the Winnipeg Dental Society.

When one hears so many dentists refusing to work for children it is an education to meet a man like Dr. McBride who has confined his practice to children for twenty-five years and seems, from all appearances, to have thrived upon it physically, mentally and spiritually. He seems a fine type of gentleman with personality plus. Part of this may be due to his English ancestry but most of it comes from

spending his working hours every day rendering service to children. He could not help but develop into what he is from such associations. The recent meetings with Dr. McBride were attended by large audiences which were presided over by Dr. C. S. McLeod, President of the Society.

J. F. M.

Winnipeg Dental Nurses and Assistants

The regular monthly dinner meeting of this Association took place on November 10. Approximately sixty members were present.

The guest speaker, Dr. Dorothy Barnhouse, presented a most interesting talk on the mode of living in foreign lands.

DOROTHY MCCULLOCH

ONTARIO

London Dental Society

Hamilton Dental Society

Academy of Dentistry, Toronto

Dr. Victor L. Steffel of Ohio State University Dental School was the guest of these societies at their respective November meetings. His subject was, "Removable, Partial Dentures and Related Factors," and it was presented in a very able and informative manner to well attended meetings in each centre. The speaker emphasized the importance of accurate diagnosis. This accomplished, he indicated, the need for proper design to implement adequate distribution of stress and maximum stability at the same time. Maintenance of best possible health of the oral tissues is also a matter of prime consideration and is promoted by good design and rigid structure, that is not prone to easy distortion or to springing.

Essex County Dental Association

There was a record attendance at the first fall meeting of this Association, held November 1.

Dr. George A. Morgan of Toronto gave a lecture on "101 Tips for the General Practitioner." It was illustrated by movies and slides and was greatly appreciated.

Dentists were on hand from Windsor, Leamington, Essex, Belle River, Chatham, Kingsville and Detroit.

Dr. W. T. McGorman Honoured

A member of the first class in dentistry at the University of Toronto and a pioneer in the dental profession, Dr. W. T. McGorman, of Port Arthur, who is still carrying on an extensive practice at the age of 84, was tendered a complimentary dinner on October 18 by the Thunder Bay Dental Society. Dr. Harold A. Saunders, president of the Society, was in the chair.

A presentation of a fountain pen desk set was made to Dr. McGorman by Dr. W. D. Ramore on behalf of the Society after a toast had been proposed by Dr. H. Gellatly.

Ontario Dental Nurses' and Assistants' Association

Twenty-seven members of this Association held their first executive meeting of the current year in Hotel London on November first and second with Miss Mildred Emmerton, Westminster Hospital dental nurse and President of the London Branch, presiding at the dinner and welcoming the executive members.

The executive business was discussed, reports were presented on the American Convention held in Boston and the Canadian Convention at Montreal. Conveners were appointed to lay plans for the Ontario convention next May.

Miss Helen Dosman, of Brantford, Ontario, President, was in charge of the business discussions. Miss Anne Kirkland, Past President for Ontario, reported the American convention to which she was a delegate, and Miss Loretta McCaughey, London bulletin editor, reported the Canadian convention held last week.

Miss Kirkland was appointed convener of the Ontario convention which will be held at Toronto in the Royal York Hotel on May 17, 18, 19. Other convention committee members are Miss Helen Campbell, Toronto co-

convener; Miss McCaughey, banquet convener; Miss Larry Ohlheiser, Kitchener, luncheon convener; Miss Rita Laroque, Ottawa, clinics convener; Miss Irene Brown, Toronto, posters convener; Mrs. Marian Edwards, Toronto, regalia convener; Miss Lois Easton and Miss Shirley Putnam of Niagara district, hostesses.

Winter dental clinics were held on November 27 and 28 in the Royal York Hotel, Toronto. One of the chief non-professional undertakings of the association is the sending of food parcels overseas.

MILDRED EMMERTON

The Dental Nurses' Alumnae Association of Canada

The October meeting of this Association was held in the Dental Building, University of Toronto. The guest speaker was Mr. L. A. Trapp, who is a member of the Toronto Camera Club, and who gave a travelogue of his trip to England, showing coloured slides. These films were taken just before the second World War and many of the beautiful buildings shown have since been demolished. Dorothy Deering introduced the speaker. The President Marion Barton presented a vote of thanks.

A very successful supper dance took place in the Royal York Hotel on October 24. The nurses in training attended the dance.

The November meeting which was held at the Diet Kitchen, took the form of a Mother and daughter Banquet. The after dinner speaker Mr. Louis Blake Duff of Welland, who is widely known for his witty and humorous addresses, was introduced by Barbara Pattison. During the dinner the guests were entertained by Miss Alice Bradley who gave several piano selections. Barbara Browne thanked Mr. Duff and presented him with a token of appreciation. Dorothy Deering thanked Miss Bradley and presented her with a corsage.

JEAN C. LINDSAY

Toronto Dental Technicians

The Toronto Study Club of Dental Technicians held a clinic and dinner meeting on October 15 at the Royal York Hotel, Toronto.

Mr. J. Tebbutt opened the meeting with a toast to the King, and dinner was off to a good start, singing to the piano accompaniment by Mr. Hewett.

Mr. B. Bowers introduced the speaker for

the evening, Mr. E. D. Sittman, who gave an interesting talk and table clinic on Dicore Anatomical Restorations. This was something entirely new to dental technicians and it was well received by a very attentive group of Study Club members. Mr. Sittman has an original humour all his own which was much in evidence throughout his clinic and was appreciated by all.

Mr. Chas. Daly tendered a splendid vote of thanks to the speaker to which all members responded with much enthusiasm.

After the clinic a regular business meeting was held lining up a winter session of very interesting and instructive clinics and meetings. The members of the Toronto Study Club of Dental Technicians are again looking forward to another very successful season and are pleased to report an increase in membership during the past year.

C. BLANDFORD

2T3 Dentistry—25th Anniversary

OBJECT

To recapture the spirit of the Years 1919 and 1923 after the lapse of a quarter of a century.

FACTORS

- Ontario types are determined to make this a real celebration.
- This is as much *your* responsibility as theirs.
- The time is—May 17, 18 and 19, 1948.
- The place is—Royal York Hotel, Toronto.
- Ontario Dental Association Convention (Perc Lowery, President) meets same time, same place.

COURSES

- Arrange employment and vacation so that you may be in attendance.
- Stay home and carry on normal routine.

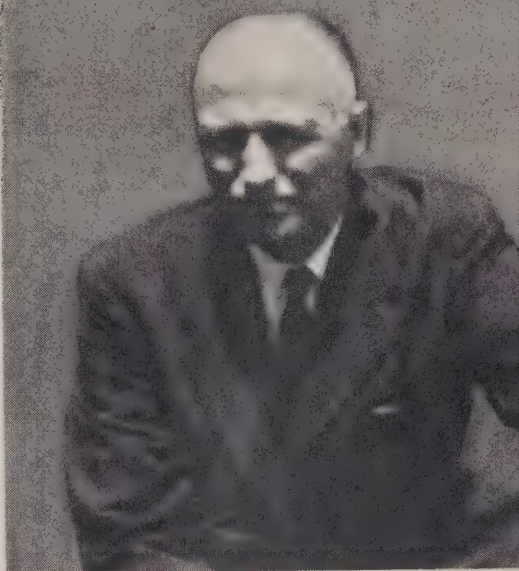
PLAN

- Adopt Course I.
- Mark out above dates in appointment book NOW.
- Book reservations.
- Send any observations or suggestions you may think up to Jesse Fullerton, Suite 110, 2 College Street, Toronto, Ontario.

ADDRESSES

All members of 2T3, wherever situated.

E. M. W.



Dr. J. Frank Giffen

News of the death of Dr. Giffen of London, Ontario, comes as a great shock to Canadian dentists. In Ontario where he is perhaps more intimately known both for his professional achievements as well as for himself, his passing is a tragic loss. He was ill but a short time when he contracted pneumonia and later developed heart complications which ended fatally on December 6. It seems as if he were stricken at the noonday of his career; he held many positions of trust and responsibility and was regarded by his colleagues as a potential leader in his beloved profession. Dr. Giffen possessed outstanding ability but with it all he was a modest man with high integrity, a quiet demeanour, a sincerity of purpose and a sympathetic understanding that endeared him to his fellow workers. Those privileged to know him best valued his capabilities and friendship most.

Dr. Giffen's age was 49; he graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1920. He began practice immediately in London and for the past 18 years he was associated in partnership with Dr. E. W. Fuller, an arrangement that has been referred to in dental circles as a model of efficiency, and harmonious co-operation.

In addition to keeping up his end in a

heavy practice, Dr. Giffen found time for many activities. He was a Governor of the Canadian Dental Association and a member of both its Committee on Dental Education and its Committee on publications; he was a director of the Royal College of Dental Surgeons and chairman of its Committee on petitions and examinations. He was past president of the London Dental Society and has continued to be a leading figure among his associates both in London and Western Ontario. He was a past chairman of London Board of Education; a member of the Rotary Club, a past chairman of the Lions Club, a past master of Tuscan Lodge A.F. & A.M. and a member of the Scottish Rite. He was an elder of First St. Andrews Presbyterian Church. Truly his life had many facets and all glittered from the radiance of his personality.

Dr. Giffen is survived by his widow and one son, James Albert. His funeral to Strathroy Cemetery was attended by many friends who came even great distances to pay their last respects to a beloved colleague and friend.

The active pallbearers were Drs. Duncan J. Ferguson, H. R. Sykes, Mr. A. R. Morrison, Mr. J. R. Hunter, Major W. R. Cunningham, Mr. Ralph Brock. In addition a long list of honorary bearers including Mr. V. A. McKillop, Mr. D. J. Ferguson, Mr. E. S. Knechtel, Mr. G. F. Kingsmill, Dr. J. K. Carver, Montreal; Dr. E. T. Bourke, Montreal; Dr. H. L. Windrim, Dr. D. W. Gullett, Dr. Stephen A. Moore, Dr. R. P. Lowery, Dr. Harvey W. Reid, Dr. Stanley J. Phillips, Dr. G. H. Campbell, Dr. Roy O. Winn, Dr. Herbert L. Field, Dean R. G. Ellis, Dr. H. L. Savage, Mr. R. J. Bailey, Dr. J. F. Blair, Mr. J. Gordon McDermid, Dr. S. M. Kennedy, Dr. A. G. Davidson, Dr. T. R. Marshall, Dr. Arnold D. Mason, Dr. John S. Lapp, Dr. John A. Bothwell, Dr. C. H. M. Williams, Dr. P. G. Anderson, Dr. E. W. Paul and Dr. Elmer Amos.

Dental Auxiliary Tea

The Ladies' Auxiliary to the Academy of Dentistry held its Annual Membership Tea at the home of Mrs. A. D. A. Mason, on October 16. The guests were received by: Mrs. A. D. A. Mason, Mrs. M. G. Boyes, Mrs. A. F. Cooper and Mrs. F. H. Shepherd. Mrs. R. G. Ellis

and Mrs. F. J. Conboy welcomed the guests. Presiding in the tea room were: Mrs. L. R. Davidson, Mrs. R. W. Matchett, Mrs. E. L. Guest, Mrs. F. L. Dayment, Mrs. W. W. Philp, Mrs. A. B. Sutherland, Mrs. C. J. Treadwell, Mrs. J. E. Verth, Mrs. K. M. McPherson, Mrs. K. A. Nicholson and Mrs. J. G. Paterson. Door attendant, Annetta Verth.

Faculty of Dentistry, Toronto New Staff Appointments

The following appointments to the Staff of the Faculty of Dentistry for the 1947-48 session have been approved by the Board of Governors of the University:

Dr. E. E. Johns	Demonstrators in Orthodontics
Dr. S. J. Lesco	
Dr. W. K. Shultis	
Dr. G. A. C. Adams	Demonstrators in Operative and Clinical Dentistry
Dr. W. O. Nursey	
Dr. F. T. Pearson	
Dr. W. M. Twible	
Dr. J. L. Chalmers	Demonstrators in Prosthetic Dentistry
Dr. W. R. Jackson	
Dr. M. J. Gibson	Demonstrators in Dental Surgery
Dr. D. H. J. MacDonald	
Dr. D. S. Moore	Demonstrator in Periodontology
Dr. M. N. Rockman	Demonstrator in Radiography
Dr. H. M. Worth	Lecturer in Radiography
Dr. E. R. W. Bilkey	Demonstrators in Clinical Pedodontia
Dr. G. Nikiforuk	
Dr. J. E. Kurtz	Demonstrators in Dental Pathology and Bacteriology
Dr. G. Shaw	
Dr. J. R. Fletcher	Demonstrator in Applied Physics and Chemistry
Dr. A. B. Hord	Demonstrator in Applied Chemistry
Miss M. W. Fleet	Dental Nurses
Miss C. A. McNabb	
Miss D. M. Pringle	

Dr. Roy G. Ellis Feted as Dean

Ontario dentists gathered at the King Edward Hotel in Toronto on November 17 to honour their new dean with a complimentary dinner. It was a great occasion which was made possible by an energetic committee on arrangements, together with the support of more than 300 colleagues many of whom came in goodly numbers to represent widely separated out of town points including, Ottawa, Pembroke, Belleville, Port Hope, Peterborough, Oshawa, Hamilton, Brantford, London, Fort William, Orangeville, Brampton and many other places. This splendid attendance was a concrete expression of interest in dental education as symbolized in the Dean of the faculty on the one hand and, on the other, a personal tribute to Dr. Ellis on his appointment to this high office. The meeting had dignity but was not cold; congeniality and friendliness provided an atmosphere of good fellowship summed up in a remark overheard at the head table—"I wouldn't have missed this for anything".

Dr. Harvey W. Reid, President of the Royal College of Dental Surgeons of Ontario was toastmaster. With him at the table of honour were Dean Roy Gilmore Ellis; Dean-Emeritus Arnold D. Mason; President Sidney E. Smith, University of Toronto; Dean Russell W. Bunting, Ann Arbor; Dean Ernst Charron, Montreal; Dean Arthur W. Walsh, McGill; Dean René Rochon, Detroit; Dean Alphonsò Leng, Santiago, Chile; Dr. J. K. Carver, President, Canadian Dental Association; Dr. R. P. Lowery, President, Ontario Dental Association; Dr. John A. Bothwell, President, University of Toronto Alumni; Dr. E. A. Grant, President, Dental Alumni; Dr. Don W. Gullett, Secretary Canadian Dental Association.

Some of the honoured guests were invited to speak by Chairman Reid. Here are a few thoughts that were expressed—Dr. Ellis is a man of God . . . He is a man of truth who hates covetousness . . . He is a gentleman with a great human sense and a fine scientific mind . . . "As a Frenchman," said Dean Charron, "I am sentimental and I am pleased—Dr. Ellis you deserve all this and more." . . . Never have I attended a function where so many paid tribute to a man just beginning his career . . . I have mixed feelings tonight because of my high regard for Dr. Arnold Mason for many years and because of my high

regard for his successor . . . A Dean can only be successful if the profession at large is favourable to and supports his administration . . . Many changes are imminent at the University as a result of much planning in recent years . . . An expanding program is underway . . . The dental faculty has always upheld its responsibilities as well as any faculty . . . This meeting is a fine tribute, indicative of the support of the Dentists of Ontario.

In proposing a toast to Dr. Ellis, Dr. R. P. Lowery recited the progress the guest of honour had made from a boy back on the farm in Australia to the high and important office he now holds. One characteristic stood out all along the way—His recognition of the importance of little things. "All mentally great men", said the speaker, "have become the men they are because they mastered the detail of doing little things well."

Dean Ellis in his reply spoke with emotion as he thanked his colleagues and associates for the great honour. "This is the climax of a long period of friendship with the profession in Ontario," said he. The theme of Dr. Ellis' remarks was suggested to him by the title of a book he read on his voyage to Canada—"The Friendly Road", by David Grayson. Of those who befriended him, first on his list of course were his Mother and Dad, then his good wife who had sacrificed his companionship when he had work to do, then a great number of professional friends and teachers. He suggested that former incumbents of the Dean's chair were great men who possessed vision and wisdom and had built a fine heritage and a fine tradition. It was his hope to serve and promote continued progress in keeping with the fine example of those who had preceded him. And now that it was his privilege to serve the students and the staff as their leader, he hoped to be able to keep an even keel and in this thought he was reminded of Kipling's poem "If".

"If you can meet with triumph and disaster

And treat those two imposters just the same"—

Finally Dean Ellis concluded his address with a quotation from Tennyson's "Morte d'Arthur"—

"More things are wrought by prayer than this world dreams of

Wherefore let thy voice rise like a fountain for me night and day."

Faculty of Dentistry University of Toronto

Registration in the Faculty of Dentistry as of November 1, 1947, is as follows:

	<i>Ex-service</i>	<i>Civilian</i>	<i>Total</i>
Predental Year	56	25	81
First Dental Year	129	31	160
Combined First Dental and Second Dental	16		16
Second Dental Year	118	43	161
Third Dental Year ...	27	48	75
Fourth Dental Year		24	24
Dental Nursing	1	24	25
D.D.P.H.	3	1	4
Other Diploma Courses	2	2	4
B. Sc. (Dent.)		2	2
Occasional students .	5	3	8
TOTALS	357	203	560

Children's Aid Society to Have Dental Service

The Ladies' Auxiliary to the Academy of Dentistry held its opening Luncheon meeting at the Royal York Hotel, September 18.

Special speakers were Dr. S. A. MacGregor, Dr. Isabel Booth, Paediatrician to the Children's Aid Society, and Mr. Stewart Sutton, one of its directors.

The plans of a new building for the Children's Aid Society are now being drafted and space is being set aside for a dental clinic. By unanimous vote taken at this meeting, the Ladies' Auxiliary has undertaken the important task of raising the funds necessary for the equipping of the clinic. It will mean a season of arduous work for the ladies, but their success will be a boon to those to whom the Children's Aid Society ministers.

DAISY E. PATERSON

QUEBEC

Montreal Dental Club

The 23rd Annual Fall Clinic of this Club was held October 22-24 in the Mount Royal

Hotel with over 400 dentists in attendance, besides dental nurses, dental dealers and others. There were 52 present who had attended the first clinic meeting of the Club twenty-three years ago.

Dr. R. B. Bell, in his presidential address stressed the Principle of Service, the Principle of the Open Mind and the Principle of Co-operation. He also pointed out that the younger men looked to the older men for leadership and doubted if they were getting it. This could well be said of more centres in Canada than just Montreal.

The table clinics, the registered clinics, the progressive clinic, the addresses by many nationally known physicians and dentists were all of a very high order, almost every phase of dentistry being covered. The exhibits also were well worth while, many new devices and materials being shown.

This writer was not able to attend many sessions to which he had looked forward on account of the many committee meetings demanding his attendance, however, he did come away with a few practical suggestions to put into every day practice as follows:

1. Wear heavy soled shoes during the day while standing on one's feet operating.
2. Wear light silk and wool hose.
3. Throw penicillin and sulpha salves down the sink as they cause much trouble.
4. Do not use medicated soaps, scented soaps or coloured soaps.
5. Plastic watch straps may irritate the skin. White metal containing nickel may also cause irritation.
6. Do not hold x-ray films in the mouth of a patient with your own finger. Harmful effects may appear even 2 or 3 years later.
7. Consider wearing a mask when operating on patients with a cold as virus pneumonias following a cold are very contagious; may lead to chronic bronchitis and are bad for the heart.
8. Perhaps too much food and too good food may be the cause of arteriosclerosis since negroes do not suffer from this disease in Africa but suffer more than whites in this country. Habitat, at least, seems to be a factor.

9. Overweight reduces life expectancy. Underfed rats and guinea pigs have a better life expectancy than those that are well fed. The underfeeding necessary to reduce the weight is the beneficial factor and not the getting rid of the weight.

10. Have outside interests and a better appreciation of ourselves.

This Convention was another Donaghan success, although to all the officers goes high praise for their efforts in planning a great meeting.

M.H.G.

NOVA SCOTIA

Halifax Dental Society

The first meeting of the autumn was held at the Nova Scotian Hotel on October 9.

The retiring president, Major Murray Logan, reviewed the proceedings of the past year and expressed his appreciation for the co-operation he had received from both the officers and members during his term of office.

The following officers were appointed for the ensuing year:

President:Dr. L. J. Archibald
Vice-President:.....Dr. P. S. Christie
Sec.-Treasurer:.....Dr. D. C. Eaton
Executive:.....Dr. Hazel Hall
Auditors:—

Drs. H. S. Crosby and J. E. Merritt

Dr. J. H. Rice presented a paper and clinic on "Muco-Seal" technique in full denture impressions. This was well received, and evoked considerable discussion.

Sydney and North Sydney Study Club

The first dinner meeting of this club was held at the Isle Royal Hotel, September 30. A program for the ensuing winter months was discussed and plans formulated.

Acting on the invitations of the Medical Staffs of the City and St. Rita's Hospitals for the appointment of dentists to the staff, Drs. Israel and G. A. Giovannetti were nominated to serve for the three months of the current year.

Dr. Ralph Parker read a paper on X-ray Technique as given by the Canadian Dental Corps Course, which was favourably received and discussed.

The club meets each month and contributions to last year's program were as follows:

Dr. L. G. Israel.....Rubber Dam Technique
 Dr. J. A. Burke.....Legal Matters and Ethics
 Dr. H. W. Burchell.....Gold Foil
 Dr. W. H. Black—

History of Dentistry in Sydney
 Dr. R. R. Dalgleish.....Vertical Dimensions
 Dr. G. A. Giovannetti—

Oral Malignant Growths
 Dr. G. B. Richmond—

Fractures and Treatment
 Dr. H. M. Parker.....Post Superior Injection
 Dr. M. Claener.....Acrylic Crowns and Inlays
 Dr. S. D. Florian.....Pin Inlays
 Dr. H. P. Cormack.....Dental Psychology
 Dr. R. ParkerX-ray Technique

Free Dental Clinic

The free Dental Clinic sponsored by the Kinsmen Club of Halifax, and operating in conjunction with the department of Health and Education, has started the third winter's activities. This clinic is held three mornings each week throughout the school year. Directed by Dr. J. P. McGuigan the operators are: Dr. Frank Fennell, Dr. J. I. Gordon and Dr. John Vaughan.

W. C. O.

BRITISH COLUMBIA

Vancouver and District Dental Society

The Society in its first meeting for the season 1947-48 got off to an excellent start. A particularly well attended meeting, held in the Hotel Vancouver on October 7 greeted the new president, Dr. Eric Nordin, and the Fleetwood Study Club of Seattle who put on the program of the meeting.

It is gratifying to see that the work of the late Dr. Clint Fleetwood, who appeared many times before the Vancouver Dental Society and the B. C. Dental Association, is being carried on by the members of his study club.

The following was the announced program:

1. *Three-Quarter Crowns* by Dr. A. Schultz. This outstanding clinician presented this paper at the recent meeting of The American Dental Association, Boston, Mass.
2. *Fundamentals in Inlay Work* by Dr. Howard Gilbert. Dr. Gilbert is the instructor of the

Fleetwood Study Club, Seattle, Wash. He is presenting this paper at the Alumni Meeting, University of Oregon.

3. *Four Table Clinics* on the technique followed by the Seattle Fleetwood Study Club.—Drs. R. P. Plummer, Milt Kessler, Ralph Ostom and A. Schultz.

A new procedure was inaugurated in that a cocktail and social hour was held at the end of the meeting.

During the business session Dr. B. W. MacKay, a graduate of the University of Alberta, was elected to membership in the Society.

The President announced that during the season two special classes under the direction of capable medical instructors would be held on the subjects of Anatomy and Pathology. These should prove to be very popular and of great benefit to the members of the Society.

During the visit to the West of the President of the Canadian Dental Association Dr. J. K. Carver, and the secretary Dr. Don Gullett, two special meetings were held, one in Victoria on October 13 and the other in Vancouver on the 14th.

The influence of the C.D.A. in the affairs of Canadian dentistry is increasing each day and it is the personal contact of such fine officers as the above that tend to knit together the dentists of Canada. Those who were able to hear Dr. Carver and Dr. Gullett took away with them much interesting and useful information as well as the impression that the affairs of the Association are being handled most capably.

On November 12 the regular meeting of the Society was held in the Vancouver Hotel.

Maury Massler, B.S., M.S., D.D.S., was the speaker for the occasion. Dr. Massler is the Associate Professor of Pedodontics, University of Illinois, College of Dentistry, Lecturer in Stomatology, University of Illinois, College of Medicine and Supervisor of Hospital Dental Services, Research and Educational Hospital, U. of Illinois.

His lecture was given in two sessions, afternoon and evening and dealt with Diseases of the Oral Cavity and their Treatment. He discussed the five principal organisms to be found in the mouth, differential diagnosis and treatment. The method of presenting the subject was most orderly and demonstrated excellent

teaching ability. At the evening session opportunity was given to ask Dr. Massler questions and this was utilized to the fullest.

The executive and committee on programs are to be congratulated on arranging such an excellent program. This was made possible through co-operation of Portland, Seattle, Spokane and Victoria.

Dr. Simmons, Chairman of the Committee on Program, announced that the proposed courses on Pathology and Practical Anatomy will definitely start on December 3. These are being conducted by Dr. Pitts and Dr. Wilson respectively.

The Society was informed that its membership is now at a new high. Seventeen new men were voted into membership to swell this number. These new members are:

Dr. D. A. Sinclair, Dr. K. M. Walley, Dr. D. T. Zack, Dr. J. N. Janzen, Dr. W. B. Touhey, Dr. J. B. Frankum, Dr. W. W. Tofft, Dr. W. E. Alexander, Dr. R. H. Crossley, Dr. A. M. Lowe, Dr. R. K. Lindsay, Dr. B. Krasnoff, Dr. A. K. Buckwold, Dr. N. L. Sanders, Dr. A. A. Fraser, Dr. L. R. McBride, Dr. G. A. Drennan.

Vancouver Dental Assistants' Association

The winter season of the Vancouver Dental Assistants' Association got away to a good start with their September and October meetings when the attendance at each averaged forty-seven members.

Plans were organized for the various activities and arrangements made to continue our very popular Study Club under the direction of Dr. M. G. Walley.

A new innovation begun last year and which promises to become an annual affair is the Christmas party when the girls will again play hosts to their doctors. Committees have been formed and preparations are well under way for this popular event.

The Executive, while very much pleased with the membership of our organization, is putting forth every effort to bring the total up to the 120 mark. This would beat all previous records, so back us up girls and don't let your membership lag!

GWEN A. HILLIARD

ALBERTA

Edmonton and District Dental Society

The one day clinic under the auspices of this Society held November 5, was attended by ninety members, including many from rural points.

The speakers were Dr. G. A. Brass, Dr. James McLean, and Dr. J. Neilson, all members of the Dental Faculty, University of Alberta and local practitioners.

At the banquet in the evening, Dr. P. J. Kendal presented the proficiency award of the Edmonton & District Dental Society for the highest scholastic standing in the 3rd year to Mr. Van Cristow and in the first year to Mr. L. Haig.

Mr. Jack Denniston, well known radio artist, entertained at the banquet.

Dr. P. J. Kendal presided and Dr. Ross Stuart, the Secretary, handled registrations.

G. Y. BARNETT

Lethbridge Dental Society

The regular monthly meeting held on October 10 took the form of a supper meeting to which the dental wives were invited. Dr. Carver, President of the Canadian Dental Association, gave an address and Dr. Don Gullett answered dental questions. Out of town guests included Dr. Baden Powell and Dr. John Clay of Calgary and Dr. Ross Gibson of Medicine Hat.

The November 13 meeting was given over to a discussion of the results of a Survey of fees which was held recently in this district.

D. A. RYLANDS

Calgary Dental Society

A regular dinner meeting of this Society was held on Nov. 17.

The resignation of the Vice-President, Dr. F. M. Murray, due to his leaving the city, necessitated the election of an officer to this executive position. The resultant election of Dr. J. G. Walker then left open the position of Sec.-Treas., to which Dr. C. Spencer Lea was elected.

Following some further business, the speaker for the evening, Dr. J. D. McLean, was introduced by the president, Dr. C. M. Lowry. Dr. McLean, a member of the Faculty of Dentistry at the University of Alberta, very capably

covered his topic "Variables in Gold Casting" by first outlining these variables, and then by explaining in detail a compensating technique. The interest of all members was held to the end of his presentation which included a fine paper, excellent slides and a keen question period.

Dr. Morris Bay thanked Dr. McLean on behalf of the society and expressed the sincere hope that this able clinician might return at some time in the near future.

SASKATCHEWAN

Health Programs

From News Bulletin of Saskatchewan Government.

Health can't be given to people; they have to want it.

In Saskatchewan, with sparse settlement accentuating economic difficulties, people are becoming increasingly aware that the best way to achieve good health is by pooling their resources to provide adequate health services.

Saskatchewan was one of the first provinces to hire doctors on a municipal basis. Saskatchewan has blazed the trail toward comprehensive hospitalization for every citizen regardless of status or income. And now the ground is being broken for preventive and curative general health services by establishment of health regions.

While good health for everyone may not be just around the next corner, the people of this province are very definitely moving toward the day when equal emphasis will be placed on preventive and curative services, when sound preventive practices will bring about a reduction in disease.

In recent years the mounting costs of medical care have brought a general realization that it is necessary to take steps to keep people out of hospitals. The money now spent on prevention is trifling compared with hospital expenses.

Health regions have been set up in six sections of the province since July, 1946, and around them is developing a pattern of public health services adapted to the local community's specific problems and resources. A general program for maintaining a high level of health under local conditions and re-

sources is the basis on which any health region is organized.

Reduced to its simplest terms, the functions of a local health unit may be described like this:

1. Study of the community and its health problems.
2. Planning of a health program.
3. Community education based on studies and program.
4. Development and administration of services in accordance with an overall plan designed for the area, to meet problems of a general and specific nature in keeping with provincial standards.

Saskatoon Dental Society

At the November meeting the local executive presented recommendations for the various chairmen required for the committee for

the next meeting of the Western Canada Dental Society in Saskatoon in June, 1949. When the personnel of the committees is complete, a copy of the slate, with the recommendation of the local society, will be forwarded, for approval or otherwise, to the Executive of the Western Canada Dental Executive.

L. D. H.

Regina Dental Nurses

On October 14 at a meeting of the Regina Dental Nurses and Assistants Association the following officers were elected:

President—Muriel Yerxa.

Vice-President—Joyce Vicars

Secretary-Treasurer—Helen Forbes

Membership Committee—Arlie Dunn

Publicity Committee—Shirley McGhee and Mollie Burns.

EMPIRE NEWS

AUSTRALIA

Medical Benefits

"The conflict over free medical service, which has been waged here since first proposals for free consultation and free treatment were announced by the Federal Labour Government in the early days of World War II, took a new turn when New South Wales branch of the British Medical Association published details of its privately sponsored Medical Benefits Fund. Though not a direct counter to the Government's as yet unimplemented free scheme, the B.M.A.'s move is regarded as at least a brake on the Government's plan and is likely to help to insure continuity of private practice to those doctors who refuse to co-operate with the Government."—*Christian Science Monitor per Public Health Economics.*

SOUTH AFRICA

National Health Foundation

"In South Africa 25 babies out of every 100 die in their first year, as compared with 3 in New Zealand, 5 in Great Britain, and 7 in Italy. More than half the coloured population live below the poverty line, and, according to 1942 report, three-fifths of the col-

oured children are badly nourished or diseased; while their infant mortality is more than 300 per 1000 live births. The Union also has many poor white families.

"A plan to establish, as a war memorial, a National Health Foundation to combat these ills originated with the South African soldiers during the war, and has been warmly accepted by the whole Union.

"The initial program is to establish People's Centres for the promotion of health and social well-being, and community living. These centres will encourage better feeding by instruction, food clubs, communal cooking, and help in vegetable-growing. Mother-craft and child welfare will also be taught, and recreation and education are to be arranged for adolescents. A second project is to provide bursaries and grants to men and women of all races to train as health workers. Finally the foundation hopes to arrange a national health campaign, which will provide lectures, films, and travelling exhibitions, besides publishing articles in the press, leaflets, and other educational material. The foundation is intended to benefit all sufferers, irrespective of race, colour, or creed, but it aims specially at building up the health and improving the living conditions of the non-European, whose needs are greatest."

GENERAL NEWS

National Cancer Institute of Canada

The formation of the National Cancer Institute this year augurs well for an extended research program to advance our knowledge of cell metabolism with special emphasis on the behaviour of the cancer cell. Using knowledge gained in such fields as endocrinology, genetics, biochemistry and biophysics, it is hoped that scientists in Canada may be able to assist in a correlated attack on this disease—the second highest cause of mortality in the Dominion.

Cancer studies are so fundamental in scope that each line of investigation requires a number of years to assess its resultant values. University budgets have been inadequate to support projects of this nature with full-time workers.

The National Cancer Institute recognized the problems involved and a widely representative organization was created. In addition to five scientific members chosen at large from the whole country there were sixteen members nominated by the following groups: The Canadian Medical Association, Canadian Dental Association, Dominion Council of Health, Association of Medical Colleges, National Federation of Universities, Department of National Health and Welfare, Provincial Treatment and Diagnostic Centres, Royal College of Physicians and Surgeons, National Research Council, Canadian Cancer Society and the Canadian Public Health Association.

The Trustees of the King George V Silver Jubilee Cancer Fund authorized a grant of \$150,000 to initiate the work and to assist in the public educational appeal of the Canadian Cancer Society. This money has already been allocated and is now supporting useful work.

The basic policy of the Institute is to foster and stimulate fundamental cancer research and to correlate the scientific side of the control of cancer by providing the provinces with whatever assistance the Institute can furnish.

In the initial year the Institute has voted on some 35 applications, of which eight were not approved and one application is pending.

National Health Insurance

Condensed from the Canadian Doctor

"National health insurance naturally loomed largely in the minds of attending members and in the deliberations and discussions of committees at the Annual Meeting of the Canadian Medical Association. No room is left for doubt, according to the views expressed by leaders of the medical profession, as to the inevitability of a government-sponsored health insurance plan being established over the Dominion at some time in the future.

"Of interest and moment in this 'inevitability' of national health insurance in Canada are certain developments at home and abroad. One question relates to the future of prepaid medical plans at present existing in Canada or that may yet be established prior to the coming into existence of a compulsory Dominion plan. Another is the possible effect on Canadian legislation of Britain's new 'cradle to the grave' national health services. A third is the extent to which future Canadian schemes may be shaped by the pattern being set by plans of a limited scope in Saskatchewan and Manitoba.

"With regard to the partial health insurance plans functioning in the prairie provinces it was officially stated that Manitoba's plan was operating successfully in the rural areas, though it was suffering a handicap in a lack of doctors and dentists, and that in Saskatchewan's Swift Current plan, where approximately 50,000 persons were getting all the benefits of national health insurance, in some cases the medical section of the plan was not costing as much as was anticipated though the hospital care was costing up to 25 per cent more.

"Dr. Archer summed up the situation very well when he said that figures and facts were emerging of tremendous importance. If there were to be substantial changes in the system of providing medical care in Canada certain experiments had to be made and discovery made by trial and error of what had to be changed. He warned all doctors that the traditional fee for service method of paying for medical care was definitely on trial in Canada and that they should govern themselves accordingly."

World Health Organization

"The World Health Association's interim commission has selected sixty-six foreign public health specialists to receive fellowships for study outside their homelands next year, it was announced here September 3. The experts will include four from Austria, eighteen from China, fifteen from Czechoslovakia, five from Finland, one from Greece, two from northern Korea, three from Poland and eighteen from Yugoslavia.

"This is the first selection of doctors, nurses and public health authorities under a World Health Organization exchange program whereby scientists and medical specialists will share in advances of medical knowledge on a world-wide basis. When all the fellows have been selected, approximately 200 will be receiving assistance all over the world."

"Health Study Furthered," New York Times per Public Health Economics.

Actions of A.D.A. Board of Trustees

Acting on instructions of the House of Delegates, the Board of Trustees of the American Dental Association voted a reduction of approximately \$90,000 in the 1947-48 budget of the American Dental Association at a special meeting held in Chicago on Oct. 11, 12 and 13.

Board members directed that *The Journal of the American Dental Association* be published once a month effective in January, 1948. Since last January there have been two issues of THE JOURNAL published each month. Prior to 1947, a small issue devoted to news events was published in the middle of each month as a supplement to the regular issue on the first of each month.

Although the return to a single issue per month will result in the loss of some advertising revenues, the reduction in printing and paper costs and postage will result in a net saving of approximately \$20,000 during the remainder of the fiscal year.

Several other major actions, curtailing expenses were taken by the Board since the 1947-48 operating budget showed an estimated deficit for the fiscal year of \$312,578.46.

General fund reserves of the Association are approximately \$1,000,000, including fixed

assets. Liquid assets of the general fund in cash and securities total approximately \$800,000. Without an increase in income or a reduction in budgeted expenditures, the general reserve would be exhausted in a little over two years.

The present financial position of the Association is sound, the Board of Trustees pointed out, but the necessity of living within income in order to maintain this sound position in the future was emphasized. Board members said that the uncertainty of present economic conditions and the fact that the increase of income through a raise in dues still awaits action by the House of Delegates were major factors in the decision to cut current expenditures to a bare minimum.

Tooth Brushing

A comprehensive study of the effects of correct brushing of the teeth in which more than 2,00 Illinois school children will take part, will be launched shortly in downstate communities under the sponsorship of the University of Illinois College of Dentistry.

Children in the sixth and seventh grades will be asked to brush their teeth at their desks at the beginning of classroom study each morning and afternoon. The children also will be asked to continue the brushing after each evening meal at home.

Brushes and a toothpowder will be provided by the University for each child. A total of \$40,000 in University funds has been made available for the project.

The study will continue over a period of two years and will involve the use of various dentifrices. Results are expected to show the relative merits of various dentifrices and the value of supervised brushing of the teeth soon after eating as against haphazard brushing in control of dental decay.

At the start of the project in each community, the children taking part will be given a dental examination and a thorough prophylaxis by a group of dentists. The examination will include an x-ray of all teeth. Portable x-ray equipment will be provided by the Division of Public Health Dentistry of the Illinois State Department of Public Health.

Three different dentifrices, each to be dis-

tributed in individualized packages in plain wrappers, will be used.

One will be a commonly used dentifrice containing soap and chalk as detergents.

A second will be a dentifrice containing dibasic ammonium phosphate and carbamide.

The third will be the same type of dentifrice minus the dibasic ammonium phosphate and carbamide. An equal number of children will use each dentifrice. Results will be compared with a fourth group of children who will receive a thorough dental examination and prophylaxis but will be allowed to brush their teeth according to their usual habits.

Through this study, believed to be the most comprehensive test of proper oral hygiene ever attempted, it is hoped to be able to find a definite answer to the proper role of toothbrushing as a means of reducing dental decay among children.

Each pupil will be required to brush his teeth for two minutes under the supervision of the room teacher immediately after the opening of the morning and afternoon school period. Each will be given a cup of water, a brush, and an individual package of tooth powder, sufficient for a single brushing of the teeth. Pupils will not be allowed to rinse their mouths after brushing so that the full effect of the dentifrice can be measured.

In addition to brushing their teeth after each evening meal and after all meals on Saturday and Sundays and other days when school is not in session, the children will also be requested to brush their teeth just before going to bed at night.

Council to Investigate Occupational Dermatitis

As part of its program of therapeutic investigation, the Council on Dental Therapeutics of the American Dental Association is compiling a list of dentists who are sensitive to procaine (novocain), monacaine, butyn and other drugs used in their practices.

The Council is beginning a study of possible means for the prevention and treatment of occupational dermatitis. The active cooperation of a large number of members of the dental profession will be necessary if the project is to succeed.

The Council asks that all dentists who are subject to occupational dermatitis write to the

American Dental Association, 222 East Superior St., Chicago 11, stating the general nature of their ailments. Names will be held in confidence if the writer so requests.

Gingivitis in Italy

Drs. Isaac Schour and Maury Massler, of the dental faculty of the University of Illinois, report in the Journal of the American Dental Association that two out of each five children and nearly every adult over fifty years in Italy is suffering from gingivitis. They point out that a post-war dental survey of 3,905 residents of Italian cities showed an incidence of gingival disease ranging from 40 per cent for children 6 to 10 years of age to as high as 98 per cent for persons 51 to 60 years of age. For the most part, the article said, Italian people are found to be malnourished.

Post-Graduate Activities in New York

Registration for post-graduate classes has been moving along at a keen pace and many of the classes have been over-subscribed, necessitating the repetition of planned programs. It is estimated that there will be a minimum of one hundred classes for the current post-graduate year.

A constant search for scientific truth and the desire to improve the art of dentistry, while maintaining its ethical standards, has prompted the Post-Graduate Committee to be critical in selecting students and clinicians.

Subsidized Medicine

by RAYMOND MOLEY

From Jour. of Missouri State D. Assoc.

In "Kiplinger Magazine" a point is made about the glaring difference in the results of two polls on health insurance. One poll asked people if they would approve a 6 per cent deduction from wages for federal medical care and hospitalization. Only 16 per cent of the replies were favourable. Another poll asked if they approved of having social security cover doctor and hospital care. Sixty-eight per cent approved.

This is about the way people react to the subject. If they are asked to pay for having the Government do something, they say no. If the inference is conveyed that they will get something for nothing, they are for it.

Dental Assistants in U.S.A. Establish Board of Certification

The House of Delegates of the American Dental Assistants Association, at its twenty-third annual session held recently in Boston, approved the establishment of a board of certification within the Association.

The board will give examinations to dental assistants and grant certificates of qualification to successful candidates.

Two Journals from One

It has been definitely decided that in January, 1948, the American Journal of Orthodontics and Oral Surgery will be separated into two journals, one to be known as the American Journal of Orthodontics and the other. The Journal of Oral Surgery, Oral Medicine, and Oral Pathology. It is thought thereby that each journal will serve it specially better.

IN MEMORIAM

Franklin L. Henry, of Oshawa, Ontario, aged 84, died on October 19. He was graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1887 and later took post-graduate courses in Philadelphia. He was a native of Oshawa and on completing his dental studies began practice which he continued for 41 years retiring about 20 years ago. He was always interested in professional activities and for many years held positions of leadership climaxed by the presidency of the Ontario Dental Association.

He was chairman of the Oshawa Parks Commission for 27 years.

He was a thirty-second degree Mason, a member of the Oshawa "30" Club, the Oshawa Curling Club, Golf Club, Hunt Club, and was secretary of the Oshawa General Hospital until the time of his retirement.

Dr. Henry is survived by his widow, one son and one daughter.

Irving J. Hance, of St. Mary's, Ontario, aged 52, was stricken with a cerebral haemorrhage while treating a patient in his office and died shortly afterwards in Stratford General Hospital. He was graduated from the Royal College of Dental Surgeons of Ontario.

He was prominent in civic affairs, and had served on the St. Marys Public School Board and on the Town Council for a number of years.

He was a member of the St. Marys United Church, also of the Masonic Order, and of Branch 269 Canadian Legion.

Dr. Hance is survived by his widow and one son.

A. Gregor Smith, of Brantford, Ontario, aged 68, died October 30 in Grimsby, Ontario. He was graduated from the University of Michigan in 1902 and moved to Regina, Saskatchewan in 1907, where he practised until about four years ago.

He served in both the First and Second World Wars, as a captain during the first conflict and as a lieutenant-colonel of the Canadian Dental Corps in the second. He served for one year as alderman in Regina and was a member of the library board of that city.

From the first, he took a very active interest in having fluorine added to the water supply of the city of Brantford.

Dr. Smith is survived by his widow, two brothers and a sister.

Cecil Rowland, of Vancouver, B.C. aged 48, died October 5. He was graduated from the Royal College of Dental Surgeons of Ontario and practised in Kimberley for ten years prior to moving to Vancouver in 1936.

Dr. Rowland is survived by his widow, two sons, and one brother.

Charles Herbert Weagant, aged 76, of Winnipeg, Manitoba, died October 30.

He was a member of the Northern Light Lodge No. 10 AF and AM, an active Orangeman and he was also active in the Anglican Church.

Dr. Weagant is survived by his brother, Dr. George Weagant, of California and a nephew.

Le Journal

DE L'ASSOCIATION DENTAIRE CANADIENNE

VOLUME 13

DECEMBRE

NO 12

Des moyens, qui sont à notre disposition, pour prévenir la carie dentaire*

par CHARLES A. DURAND, D.D.S., L.C.D., Montréal

IL EXISTE beaucoup de parti-pris à propos de la prévention de la carie dentaire.

Nous sommes de ceux, qui croient que "la carie dentaire est due à notre manière moderne de vivre et de nous alimenter"; pour prouver cette opinion, permettez-nous de la baser sur trois assertions, que nous développerons plus loin:

- 1) L'aseptie de la bouche n'enraye pas la carie dentaire.
- 2) Certains peuples, vivant d'un régime contenant sept fois plus de calcium et de vitamines que le nôtre, ne font pas de carie dentaire.
- 3) Ce régime, appliqué à des groupes modernes, a enrayé la carie dentaire.

Et, comme corollaire de ceci, nous verrons que la manière de prévenir la carie dentaire ne réside pas dans la dentisterie, telle que pratiquée aujourd'hui, mais dans les moyens à prendre pour éduquer le peuple à se mieux nourrir et à se faire traiter davantage, rôles des gouvernements, de l'Université, de la profession. Des gouvernements, puisque le problème est d'ordre social; de l'Université, puisqu'elle est le flambeau, qui éclaire le peuple par les professionnels qu'elle forme; de la profession, puisque

c'est du professionnel que doit jaillir la science et, comme il prend contact avec beaucoup d'individus, il est donc l'éducateur par excellence.

Que la carie dentaire est fort répandue, je n'ai pas à insister sur ce point. Vous savez tous que 98% des gens, qui circulent dans les rues, font de la carie dentaire. On vous a dit que 22% de nos recrues, notre plus belle jeunesse, avaient, en moyenne, plus de 11 dents cariées dans leur bouche, ce qui les éliminaient temporairement des cadres de l'armée. Ce sont là des statistiques pour 1941, statistiques du Canada et des Etats-Unis.

Il serait bon de répéter aussi que 50% des enfants de deux ans et demi ont deux dents au moins de cariées et que 90% des enfants d'âge scolaire ont plus de six cavités, nécessitant l'extraction de 3 dents et plus.

Voilà le problème qui s'offre à nos yeux. N'est-ce pas humiliant? N'est-ce pas décevant pour une profession que certains croient si avancée?

Dans la solution de ce grand problème, voyons ce que l'aseptie de la bouche a donné.

Ces résultats sont illustrés par les recherches et les observations faites depuis plusieurs années à la clinique Murray and Léonie Cuggenheim, de New-York.

Cette clinique fonctionne depuis 1929.

*Conférence prononcée à la Société Dentaire de Montréal, le 18 mars 1947

Elle a comme directeur le docteur John Appie McCall, dont nous connaissons tous les activités. J'ai visité cette clinique, il y a quelques années, alors que j'assistais au Greater New-York Dental Meeting.

Le but, qu'avaient ses fondateurs, en 1929, était d'appliquer aux enfants de New-York les principes de dentisterie préventive connus alors et d'enrayer, par là, la carie dentaire, qui faisait des dommages considérables dans leur bouche et attendait à leur santé en général.

Et, croyant que la carie dentaire était due uniquement à la négligence et au manque d'hygiène buccale, on entreprit d'obturer toutes les caries, d'extraire toutes les dents trop mauvaises et d'habituer les enfants à la prophylaxie quotidienne et de rappeler ces mêmes enfants à la clinique, tous les six mois, pour prophylaxie et examen. C'était très intéressant; c'était un programme très sérieux élaboré par des directeurs aussi très sérieux.

On présuimait qu'en faisant disparaître de la bouche toute carie, il ne s'en produirait plus de nouvelles ou que de très rares. On mettait en pratique les observations tirées de la pomme gâtée, qui, par son contact, en gâte une autre, puis une autre, et finalement tout le panier.

A cette époque aussi, un nommé Taddeus Hyatt faisait du bruit avec sa théorie que si l'on obture tous les sillons des dents, avant que la carie s'y installe, on prévient la carie de ces sillons et de plus on prévient la carie des faces proximales des dents.

Tout le monde connaît l'odontotomie prophylactique. C'est une très bonne mesure qui devrait être appliquée dans la bouche de tous les enfants. Mais, Messieurs, l'idéal serait que nos enfants poussent des dents avec des sillons inattaquables par la carie et que l'on n'ait pas à blinder leur fragile carapace par de l'alliage ou de l'oxyphosphate. On disait aussi, alors, avec plus de conviction qu'aujourd'hui, que brosser ses dents, deux fois par jour rendait sa bouche indemne de la carie.

Voici les conceptions de la dentisterie préventive d'alors. Et, en face de ces principes solidement élaborés par la direction de Cuggenheim, voyons les résultats qu'a fournis cette clinique de 1930 à 1940.

Nous ne pouvons vous décrire en détails tout ce qui se fait dans cette clinique de cinq étages, où dix-huit fauteuils sont employés à l'obturation des dents, sept aux prophylaxies, trois aux extractions et trois au diagnostic et aux radiographies, où 200,000 traitements se donnent annuellement.

On y reçoit les enfants vers l'âge de deux ans et demi et ils sont congédiés vers l'âge de 14 ans. Les dents d'enfants ont une importance au traitement aussi grande que les permanentes. Elles sont obturées avec de l'amalgame sur base d'oxyphosphate de zinc.

A la visite initiale, des radiographies de toute la bouche sont prises ou du moins des "bite-wings". On fait des traitements de canaux sur les dents non infectées, qu'il est nécessaire de conserver, et c'est généralement la pulpectomie, que l'on fait, avec momification des nerfs radiculaires.

Dans les cas d'extractions prématurées, des appareils conservateurs d'espace sont appliqués dans la bouche. Vous voyez, Messieurs, que l'on fait de la dentisterie de haute qualité à Cuggenheim.

Après dix ans de travail dans cette clinique comportant un si beau programme, où l'aseptie régnait en maître, voici les constatations, dont nous fait part son directeur, le docteur J. Appie McCall, et ici, ce sont les paroles mêmes du docteur que je rapporte: "Après dix ans d'application du plan de conservation-prévention, voici les deux constatations, que je suis forcé d'avouer: Le premier fait c'est que beaucoup d'enfants à l'âge de deux ou trois ans font un genre de carie qu'il est impossible d'attribuer à la négligence ou à la malpropreté. Et le second fait c'est que les cavités proximales, tant des dents d'enfants que des dents d'adultes, n'ont aucune relation appréciable avec les caries déjà existantes remplies ou non sur d'autres dents; les cavités proximales se produisent avec

autant de fréquence aux points de contact parfaits qu'aux points de contact emmagasinant des aliments."

De 1932 à 1940, il y eut 34,232 enfants, qui furent rappelés à la clinique, 4 ou 5 fois. Il y eut donc pleine opportunité d'étudier non seulement l'état initial des dents des enfants traités, mais aussi l'efficacité au point de vue préventif du programme où la dentisterie réparatrice seule fut mise en jeu.

Mais avant que le Dr McCall porte lui-même jugement sur les résultats obtenus, prenons connaissance de ces résultats, examinons la bouche de ces enfants revenant à la clinique en 1933 après que leurs dents eurent été réparées en 1930, en 1931 et en 1932.

En 1932, ces enfants revenant à la clinique avaient
En moyenne de 2.4 caries par bouche
En 1934, moyenne de 2.3 caries par bouche
En 1935, moyenne de 3.3 caries par bouche
En 1936, moyenne de 3.6 caries par bouche
En 1937, moyenne de 3.9 caries par bouche
En 1938, moyenne de 4.2 caries par bouche
En 1939, moyenne de 4.5 caries par bouche

Encore une fois, laissons le directeur de la clinique porter jugement sur ce tableau: "En face de ces constatations," dit-il, "nous sommes forcés d'admettre que notre programme élaboré en 1929, que l'on croyait être de prévention, n'est pas du tout un programme de prévention des caries au sens strict du mot, quoiqu'il fasse un bien immense au point de vue hygiène buccale et au point de vue avortement d'une foule de maladies d'enfants. Ce qu'il nous faut," continue le directeur, "c'est l'amélioration de notre programme afin que le nombre des caries soit grandement diminué sinon complètement éliminé chez les enfants revenant à la clinique pour la deuxième ou troisième fois. Ainsi nous pourrions étendre nos soins à un plus grand nombre d'enfants."

Nous voyons que le problème d'enrayer les caries ne se résoud pas par l'aseptie de la bouche. Qui n'a pas vu des bouches très malpropres ne faisant pas de carie et, d'autre part, qui ne peut se représenter une foule de ses patients, se brossant les dents deux fois par jour, observant une hygiène scrupuleuse de la bouche et revenant au bureau, à tous les

ans, voire même à chaque période de six mois, avec de nouvelles caries.

Et, poursuivant nos recherches, faisons face à un autre tableau. Laissons la clinique Cuggenheim de New-York et transportons-nous au milieu de groupements ne faisant pas de carie dentaire. Je vous présenterai des groupes d'individus, qui ne font pas de carie, ou qui ont déjà vécu sans faire de carie et nous essaierons de tirer des conclusions.

Si nous regardons évoluer ces gens, nous les verrons indemnes de la carie dentaire, tant qu'ils seront soumis à leur diète primitive. Nous les verrons heureux et goûtant au vrai bonheur de vivre.

Mais dès le jour où ces peuplades primitives changeront leur diète rudimentaire pour s'adonner à la diète des grands civilisés, on verra ce franc bonheur se changer en peines de toutes sortes, que sont les maladies des peuples modernes: décalcification, urémie, carie dentaire, tuberculose, diabète, etc. . . .

Et, si nous appliquons les principes tirés de ces observations et de ces faits à certains groupements d'individus ou d'enfants vivant sous nos yeux, vivant au milieu de nous et si nous voyons ces individus devenir indemnes de carie, serons-nous convaincus qu'il est certainement des facteurs-causes de la carie et que *la mise en jeu de ces facteurs est le seul moyen et le moyen radical de prévention de la carie dentaire?*

Messieurs, je n'ai pas le temps et ne peux pas vous citer tout le travail et les études réalisés dans ce sens, mais je peux vous affirmer que tous les auteurs sérieux, Price, Waugh, Jones, Mallenby, Hawkins, etc., s'accordent à dire que ces gens, qui vivent sans faire de carie, ont une diète sept fois plus riche que la nôtre en calcium et en vitamines et, par là, moins riche en hydrocarbures.

Le Docteur Price, anthropologiste et écrivain américain, a voué une partie de sa vie à l'étude du problème dentaire et des causes de la carie. Il a fait le tour du monde, à la recherche de groupements indemnes de la carie dentaire. C'est un auteur qu'il faut connaître. C'est

l'auteur le plus sérieux, qui ait écrit sur le problème dentaire.

Le Dr Price a fait des études sérieuses de 14 tribus primitives et partout il a prélevé des spécimens de leur régime. Après de nombreuses analyses de laboratoire il a conclu que leurs aliments

gramme préventif de la carie par un programme de diète et nutrition.

Bien avant lui cependant, une femme, Martha Jones, avait attiré l'attention du monde dentaire sur un genre de carie rampante ou décalcifiante que l'on nomme l'odontoclasie. Martha Jones ins-



PHOTO No 1.—Quatre Polynésiennes, n'ayant pas été touchées par la civilisation, exhibent des dentures parfaites.

contenaient sept fois plus de calcium et de vitamines que les nôtres. Et ces faits ont été confirmés par une foule d'auteurs et de chercheurs. C'est ce que disait le Docteur Waugh, lors d'un de nos congrès dentaires de langue française, en nous donnant le résultat de ses excursions au Labrador et aux régions glaciales du Canada.

C'est en face de ces faits que le Dr McCall parlait d'améliorer son pro-

gramme diététique pour les enfants d'Hawai qui fut vraiment préventif de la carie. Ce programme était basé sur une amélioration de la diète au point de vue calcium et vitamines et sur une diminution des hydrocarbures, ce qui réduisit les caries des enfants d'Hawai du chiffre 100 au chiffre 7.

En même temps que le coefficient des caries diminuait d'une façon si convaincante, la mortalité infantile diminuait

aussi dans les mêmes proportions, ainsi que la pneumonie, la gastro-entérite, le béri-béri et autres maladies d'enfants.

Les expériences de Mad. May Malenby sur les enfants de Londres ne sont pas moins convaincantes et sont connues universellement.

teur Paul Emile Poitras. Ce que j'avance ici, Messieurs, m'a été affirmé par le docteur Poitras lui-même. Ces enfants ont un régime bien balancé, élaboré par un de nos bons pédiâtres de Montréal, régime qui n'est pas déséquilibré par les sucreries des visiteurs, ces enfants n'ayant



PHOTO No 2.—Types de peuplades primitives, que la civilisation a atteints. A) Polynésienne, atteinte de carie dentaire et de tuberculose. B) Micronésien, dont un abcès dentaire a transpercé la joue. C) Australien à la bouche édentée presque complètement par la carie. D) Jeune indienne ayant perdu presque toutes ses dents par la carie.

Je veux mentionner aussi, d'une manière toute spéciale, les observations faites sur un certain groupe d'enfants, que l'on pourrait voir et toucher du doigt et qui ne font pratiquement pas de carie dentaire. Je veux parler des 300 jeunes enfants de la crèche d'Youville, à la Côte de Liesse, sous la surveillance du doc-

pas de parents. Mais dès que ces enfants commencent à se nourrir au gré de leurs caprices et qu'ils mêlent le sucre à leur diète, la carie dentaire apparaît.

Le docteur Krasnow, diététicien attaché à la clinique de Cuggenheim, avance, d'après des observations et des analyses basées sur plusieurs années

d'expérience à la clinique même, que les enfants, qui font de nombreuses caries, vivent d'une diète acide, pauvre en vitamines et en calcium, et que les enfants qui font peu ou pas de carie vivent d'une diète alcaline riche en vitamines et en calcium. Aussi, depuis 1940, on contrôle les enfants de Cuggenheim au point de vue diète et nutrition et les résultats sont pleins d'espérance, en ce qui concerne la prévention des caries.

J'ai rencontré, à New-York, Miss Ruth L. White, diététicienne en chef de Forsythe et, en nous expliquant le système suivi à la clinique pour améliorer la diète des enfants, elle nous montra les résultats, étonnants, qu'on obtenait.

En 1940, entendis, à Baltimore, plusieurs causeries se rapportant à la prévention de la carie et souvent on a répété les paroles fameuses du Dr McCallum, de l'hôpital John Hopkins de Baltimore: "After you eat what you should then you can eat what you want." Ces paroles sont pleines de leçons.

À Chicago, à la clinique Zueller, on se donne beaucoup de peine pour contrôler la diète des femmes enceintes et des enfants et on obtient des résultats très encourageants.

Le docteur Hawkins, homme bien connu dans le monde de l'hygiène dentaire, a visité de nombreux pensionnats et orphelinats par tous les Etats-Unis. Dans tous ses écrits sur le contrôle de la carie dentaire, voici ce qu'il dit: "Les enfants, soumis à une diète rationnelle et qui bénéficient des facteurs d'environnement rigoureusement appliqués et contrôlés, échappent à la carie dentaire dans une proportion de 95% et même au delà."

Et combien d'autres témoignages je pourrais apporter. Le problème de contrôler la carie est un problème de diète, de régime, de nutrition. Si on veut le résoudre, on doit l'attaquer du côté biologique et physiologique. Il n'y a pas d'autre voie encore sûrement connue. Et si vous voulez une opinion très récente d'une autorité à laquelle on doit s'arrêter, lisez la page éditoriale du Dental Items of Interest, de janvier 1947, et vous

trouverez écrit par le docteur Paul H. Belding: "Si notre population est tarée de 529,000,000 de cavités, il est grand temps de faire paraître la vérité au regard du peuple par une saine et franche publicité qui lui fera connaître l'étendue de son mal. L'on ne doit pas demander au congrès plus de cliniques dentaires, plus de chaises dentaires et plus de dentistes pour remplir un nombre toujours grandissant de cavités. Mais l'on devrait redresser les habitudes du peuple au point de vue diète et nutrition et, en une seule génération, on verrait l'incidence de la carie dentaire réduite en des proportions extrêmement encourageantes." C'est ainsi que s'exprimait le docteur Paul H. Belding, rédacteur du Dental Items of Interest, il y a à peine deux mois.

Ne croyez pas, Messieurs, que la théorie du calcium et des vitamines commence à être détronée. J'en vois qui ont lu des choses extraordinaires se rapportant au Fluor mais qui n'ont pas encore vu des résultats extraordinaires donnés par le Fluor.

D'après les études qui ont été faites à ce sujet, voici les conclusions que l'on peut en émettre: c'est que l'ensemble des chercheurs en sont venus à dire que le Fluor agit comme un antienzyme en présence des dents. Ceci veut dire que le Fluor agirait comme la solution de No^3Ag de Howe.

Cette question a été jugée maintes fois avant aujourd'hui. C'est une bonne mesure préventive de la carie, qui devrait être classée avec l'orontomie prophylactique de Hyatt.

Le Fluor agirait comme la Vitamine K synthétique. Le Fluor agirait comme l'acide iodacétique. Et ces données sont celles du docteur J. Stanley Bagnall, D.D.S., de Halifax, ancien secrétaire de l'A.D.C. Et ce sont aussi les idées du docteur B. G. Bibby, doyen de l'école dentaire Tufts, de Boston, qui, lors du Fall Clinic nous disait, après nous avoir parlé du Fluor, que nous devrions doubler nos efforts pour combattre la carie dentaire 1° par la théorie du calcium et des vitamines et 2° par la réduction des hydrates de carbone dans le

régime, deux armes qui nous ont donné de bienfaisants résultats.

Et pour combattre encore la théorie du calcium, (car elle a des adversaires) j'en entends d'autres encore, qui disent que lorsque la dent est calcifiée elle n'a plus de circulation sanguine ou lymphatique et qu'elle ne peut plus, par conséquent, être atteinte dans le métabolisme du calcium ou du phosphore. A ceux-là je dirai que des expériences très concluantes ont été faites dans ce sens. On a fait ingérer du calcium et du phosphore à des sujets et, après deux heures, on a trouvé du calcium et du phosphore dans l'émail et la dentine des dents, ces dents ayant auparavant été isolées par la digue. Cela prouve une circulation bien existante dans la dentine et l'émail des dents.

On a aussi isolé des dents par la digue de caoutchouc et on a mis leurs couronnes en contact avec des solutions contenant du phosphore et du calcium. On a extrait ces dents, après des périodes de contact variant entre deux heures et quatre heures, et le phosphore et le calcium avaient pénétré l'émail, la dentine et s'étaient logés jusque dans les racines des dents.

Cette expérience montre un degré de porosité relativement grand des différents tissus des dents.

Ce qui montre que la théorie d'assimilation et de pénétration du calcium et du phosphore est encore bien vivante et que l'on doit y croire et qu'elle n'est pas encore détronée, ni surannée.

Lè docteur Paul H. Belding nous dit encore que les rince-bouches et les dentifrices, contenant du fluor, n'ont pas donné de résultats encourageants.

Permettez-moi encore de poser devant vous quelques réflexions. La dentisterie fait de grandes choses au point de vue mécanique et esthétique: les coiffes en porcelaine, les substances acryliques, les "inlays," les pontiques à attachements mobiles sont des oeuvres de mécanique et d'esthétique admirables. Mais au point de vue biologique et physiologique où en sommes-nous? Atteignons-nous notre but qui serait la guérison, l'extermination du grand fléau dont les hommes sont

frappés, je veux dire la carie dentaire?

Il y a un peu plus de cent ans, nous nous sommes libérés des liens de la médecine avec un rire narquois pour conduire notre barque seuls. Nous avons fait dès lors de rapides progrès du côté mécanique pour négliger de plus en plus le côté biologique. Avec la découverte de Roentgen, nous avons vu nos erreurs; nous nous sommes convaincus et nous nous sommes fait montrer du doigt parce que nous construisions nos chefs-d'oeuvres de mécanique sur, j'oserais dire, des déchets, d'où émanait une infection désastreuse.

A ce propos, Messieurs, voici ce que disait, en 1938, le président de la Rockefeller Foundation:

"L'Amérique est l'étendard de l'univers au point de vue dentisterie mécanique. Cependant, tant que nos écoles dentaires ne se rapprocheront pas davantage de nos écoles médicales pour y trouver la formation nécessaire aux recherches biologiques, l'Amérique gardera tout de même sa dénomination au point de vue mécanique, je le concède, mais les mesures essentielles du traitement et de la prévention des caries resteront dans l'ombre et inconnues."

C'est après ces considérations et d'autres semblables qu'une révolution est en cours dans les programmes dentaires, révolution qui consiste à donner aux aspirants des notions plus élaborées en biologie, en physiologie et en hygiène publique. Voyons d'un bon oeil, Messieurs, ces changements qui s'accomplissent pour le plus grand bien de la profession et du peuple en général. La route, qui conduit à la solution de notre problème, commence à être jalonnée de phares déjà assez lumineux. Le grand problème c'est de nous y engager nous-mêmes et d'y faire engager le peuple.

Et c'est dans ce sens, qu'aux Etats-Unis, on est à organiser un programme d'éducation dentaire de grande envergure. L'organisation porte le nom de Council on Dental Health; son but est de prévenir et de contrôler les maladies dentaires, beaucoup trop répandues en Amérique. Pour ce faire, le Council on

Dental Health utilise toutes les ressources scientifiques et les années d'expérience de l'American Dental Association et appelle à son aide The Board of Public Education, qui diffusera, dans toutes les écoles du pays, les données propres à éduquer le peuple sur la prévention de la carie. Quand les Etats-Unis font quelque chose, ils le font généralement bien. Ce programme est très beau et j'espère que nos gouvernements s'en inspireront.

Notre gouvernement fédéral, d'ailleurs, est à louer pour son programme d'alimentation rationnelle élaboré, il y a quelques années. Je loue aussi l'organisation des unités sanitaires de la Province de Québec. Elles font beaucoup de bien. Je loue la Ligue d'Hygiène Dentaire de son programme éducatif, mis à la portée de tout le monde par la radio et par les journaux. Il y a deux ans, lorsque je parlais sous les auspices de la Ligue d'Hygiène Dentaire, je m'exprimais ainsi: "Quand donc comprendrons-nous, dans le monde de l'éducation publique, que l'art de la santé comporte certaines règles, certains principes qui doivent être enseignés dans les collèges, les couvents, les écoles autant que l'on enseigne les règles et les principes de la didactique, des mathématiques, de la philosophie, du grec et du latin . . ."

La solution du problème dentaire dépend aussi de chaque professionnel, dentiste, médecin, hygiéniste qui s'occupe d'éducation auprès de son patient.

La solution du problème dentaire dépend de l'Université, qui ne doit pas ménager ses efforts pour former des hommes, des dentistes, des professeurs comprenant le problème dentaire et ayant la formation pédagogique voulue pour communiquer aux autres leur savoir.

C'est ce que l'on est en train de réaliser ici même à notre école dentaire. Et le mouvement est commencé depuis surtout que nous sommes installés à la montagne.

La vulgarisation d'une théorie est souvent longue et ardue surtout lorsqu'il s'agit d'en imbiber le peuple. Pasteur faillit être lapidé lorsqu'il annonça la théorie des germes. Et Lister fut la risée des médecins d'alors lorsqu'il assainit les hôpitaux de Glasgow et d'Edinbourg par ses antiseptiques. Ceci se passait en 1868; c'est bien près de nous. Pasteur et Lister triomphèrent.

Des médecins de Montréal faillirent eux aussi être lapidés lorsqu'il s'est agi d'assainir la ville et surtout d'appliquer la vaccino-thérapie pour la prévention des maladies contagieuses.

Messieurs, les principes sont trouvés, les contacts restent à faire. Ils se feront par l'Université et par le corps professionnel qu'elle forme. L'Université est le flambeau qui éclaire le peuple et, pour faire revivre le souvenir de Pasteur, dont on célébrait la mémoire, il y a quelques mois, je dirai en empruntant ses propres termes, que "les Universités et les Laboratoires sont les temples de l'avenir, de la richesse et du bien-être. C'est là que l'humanité grandit, se fortifie et devient meilleure."

Il siérait de répéter ici les paroles du Dr. Houghton Holliday à qui il y a deux ans, l'Université décernait un doctorat "Honoris Causa": "Dentistry is not only at the crossroad," dit-il "dentistry is on the march." Oui, "dentistry is on the march." Ces paroles s'appliquent bien à notre école dentaire.

1244, rue Mansfield, Montréal





PAGES EDITORIALES

COMITE DE REDACTION

PAUL GEOFFRION, B.A., D.D.S., A.I.D.O., F.I.C.D., L.C.D. ARMAND FORTIER, D.D.S., L.C.D.

Rédacteur:

GERARD DE MONTIGNY, B.A., D.D.S., M.Sc.D., L.C.D.
397 est Boul. S.-Joseph, Montréal

Souhaits Pour L'Année Nouvelle

Le Comité de Rédaction de la section française du Journal de l'Association Dentaire Canadienne souhaite aux membres de langue française de l'Association une Nouvelle Année heureuse et prospère!

L'année, qui se termine, ces jours-ci, a été fertile en événements de toute nature. Comme toutes les circonstances, qui constituent une existence humaine, certains de ces événements furent des plus intéressants, d'autres d'un aspect moins attrayant. Mais, en général, 1947 s'est montré assez favorable aux membres du Comité de Rédaction.

Les dentistes canadiens-français se sont intéressés d'avantage à notre Journal et la collaboration scientifique ne nous a pas manqué.

Nous avons repris avec l'Europe nos relations d'avant-guerre et nos confrères de langue française d'outre-Atlantique nous ont manifesté un grand plaisir de continuer nos échanges de publications dentaires.

Les dirigeants de notre Association reconnaissent de plus en plus la valeur et l'apport, que leur vaut la représentation française au sein de l'Association. Aussi sont-ils bien disposés à notre égard et sont-ils prêts à accorder plus de place à notre langue dans leurs délibérations et leurs publications officielles.

Le seule ombre à ce tableau, plutôt enchanteur, provient des problèmes de main-d'oeuvre, qui s'occupe de l'élaboration technique de notre Journal. Nous avons essayé, toute l'année, de vous faire parvenir votre Revue, plus au début du mois, mais toujours, des difficultés de conditions de travail d'impression ont contrecarré nos projets. Sans vouloir s'immiscer dans des problèmes, qui ne sont pas de notre ressort, nous regrettons ces difficultés, qui retardent la publication et qui augmentent les frais de notre Journal.

Et l'évènement, qui réjouit le plus les membres du Comité, est l'addition de quelques pages à la section française, augmentation, qui commence ce mois-ci et qui se renouvellera tous les trois mois. Depuis longtemps, nous demandions ces quelques pages supplémentaires; et toujours le règlement de cette question était remis pour des raisons d'ordre majeur, telles que la pénurie de papier, le manque de main-d'oeuvre, etc.

Nous allons de l'avant, c'est sur. Il faut continuer. Il n'en dépend que des membres de langue française de notre Association, car la sincérité et le bon vouloir de la Rédaction vous sont offerts bien volontiers.

G. de M.

CONGRES NATIONAL DES DENTISTES DU CANADA

les 20, 21, 22, 23, 24 juin, 1948

Manoir Richelieu, Murray Bay, Province de Québec

COMMENT ATTEINDRE MURRAY BAY:

EN AVION:

Jusqu'à Montréal ou Québec. De là à Murray Bay en bateau.

EN CHEMIN DE FER:

Jusqu'à Montréal ou Québec. De là à Murray Bay en bateau.

EN AUTOMOBILE:

- (1) Passant à Québec via Route No 15 à Murray Bay (93 milles).
- (2) Par la Rive Sud jusqu'à la Rivière-du-Loup, Rivière-du-Loup - (traversier) St-Siméon, St-Siméon à Murray Bay (25 milles).

QUEBEC - MURRAY BAY - QUEBEC

EN BATEAU:

ALLER:

Départ du Quai de la C.S.L. le 20 juin, 7.30 A.M. (H.N.E.)
Arrivée à Murray Bay le 20 juin, 12.00 (midi) "

RETOUR:

Départ de Murray Bay le 24 juin, 1.25 P.M. (H.N.E.)
Arrivée à Québec le 24 juin, 6.00 P.M. "

Prix du billet aller et retour \$6.00

MONTREAL - MURRAY BAY - MONTREAL

ALLER:

Départ du Quai de la C.S.L. le 19 juin, 6.45 P.M. (H.N.E.)
Arrivée à Murray Bay le 20 juin, 12.00 (midi) "

RETOUR:

Départ de Murray Bay le 24 juin, 1.25 P.M. (H.N.E.)
Arrivée à Montréal le 25 juin, 7.00 A.M. "

Chambre
Lits
Superposés
\$31.45

Chambre
Lits
Superposés
\$34.35

Chambre (de luxe)
Lits Jumeaux
Bain
\$41.80

Allocution de Présentation d'un Diplôme Honorifique au Docteur J. A. N. Thibert *

par ERNEST CHARRON, DOYEN,
Faculté de Chirurgie, Université de Montréal.

Je suis très heureux d'assister au neuvième congrès de l'Association Dentaire Franco-Américaine. D'autant plus que je retrouve ici l'atmosphère de chez-nous. Je ne suis pas un étranger parmi vous: c'est à titre de cousin que je prends part à la véritable fête de famille qui vous réunit, si nombreux, ce soir.

L'Université de Montréal, dont je vous apporte les hommages et les vœux, a voulu profiter de ce Congrès pour reconnaître les mérites de l'un des vôtres et, en même temps, attester qu'elle est en communion d'idées avec votre Association. C'est avec une grande joie que Monseigneur le Recteur décerne au docteur J. A. N. Thibert un doctorat honorifique, la plus haute distinction que notre Université puisse accorder.

Je suis encore l'interprète de l'Université de Montréal en offrant mes vives et respectueuses félicitations au docteur J. A. Harpin à qui la Providence a accordé le rare privilège d'exercer pendant un demi-siècle la profession de chirurgien-dentiste. La longue et belle carrière du docteur Harpin fait honneur à notre profession et sera, pendant longtemps, un exemple et un encouragement pour tous nos confrères.

Je veux aussi féliciter chaleureusement le docteur J. A. Corriveau dont l'American College of Dentists vient de reconnaître la valeur en l'accueillant parmi ses membres. Cet honneur insigne se reflète sur l'Association Dentaire Franco-Américaine dont il fut le premier président.

Je n'ai pas l'intention de faire un discours ou une conférence historique. Vous me permettrez toutefois de vous dire combien les Canadiens-français admirent la fidélité avec laquelle vous maintenez le caractère et les traditions de notre

race. Nous aussi, malgré l'esprit de la constitution de notre pays, nous devons lutter pour préserver nos droits et assurer notre survivance. Nous n'en sommes que mieux en mesure d'apprécier les efforts et les sacrifices que vous êtes tenus de faire pour échapper à l'ambiance américaine, qui est si puissante, et, tout en restant de loyaux citoyens de la République, pour soustraire à l'action du grand creuset les caractéristiques qui nous viennent de notre commune origine.

L'instinct supérieur de conservation, qui a toujours animé le Canada français, nous fait écarter, de nos jours encore, l'enseignement hétéroclite qui conduit au baccalauréat sans que l'élève soit tenu de se soumettre à des disciplines qui nous paraissent essentielles. Nous n'entendons pas condamner ce système prétendu moderne; nous estimons seulement que les méthodes traditionnelles sont plus solides, plus cohérentes, plus logiques, et qu'elles sont plus propres à former l'esprit des gens de chez-nous. Nous ambitionnons de faire de nos sujets d'élite non seulement des spécialistes, mais encore des hommes et des citoyens. C'est pourquoi nous voulons qu'en arrivant à l'Université pour entreprendre les études qu'exige chaque profession, ils aient déjà acquis au moins des notions de culture générale.

Les nouveaux édifices de l'Université de Montréal, sur le versant du Mont-Royal, forment un ensemble imposant. Je pourrais dire, je crois, sans exagérer, qu'ils sont un sujet de fierté pour les Montréalais et un objet d'admiration pour les visiteurs de l'extérieur. Il va sans dire, cependant, que les préoccupations des dirigeants ne s'arrêtent pas à l'aspect matériel de notre institution.

Les diverses Facultés de l'Université de Montréal, ainsi que les Ecoles affiliées, manifestent depuis quelques années un

*Au congrès de l'Association Dentaire Franco-Américaine, tenu à Boston, le 12 mars 1947.

regain d'activité. Le nombre des étudiants est en constante augmentation et l'on n'épargne aucun effort en vue de perfectionner l'enseignement. Dans plusieurs branches du savoir, l'on s'est assuré le concours de spécialistes de l'étranger qui, tout en faisant profiter les élèves de leur science, forment des sujets qui, le moment venu, seront aptes à leur succéder.

Je vous parlerai plus particulièrement —si vous le voulez bien— de la Faculté de Chirurgie Dentaire. Non pas, certes, parce que j'estime que c'est la plus importante; mais parce que c'est celle que je connais le mieux et celle qui, sans doute, vous intéresse davantage.

La Faculté de Chirurgie Dentaire de l'Université de Montréal, fondée en 1904, a été complètement réorganisée en 1944.

Dès le mois de janvier, mes collaborateurs et moi avons commencé un inventaire complet de la situation. Programmes, méthodes pédagogiques, fonctionnement des cliniques, personnel, matériel: rien n'a échappé à nos investigations. En d'autres termes, et pour employer un langage tout à fait d'actualité pendant le carême, nous avons fait un examen de conscience général et rétrospectif. Or, comme il arrive souvent en pareil cas nous avons constaté bien des déficiences et des faiblesses. Notre bilan établi, nous nous sommes mis résolument à l'oeuvre en vue d'élaborer de nouveaux programmes. Afin de parer aux besoins immédiats, nous avons d'abord dressé un programme d'études à l'intention des finissants de cette année-là, afin d'augmenter leurs chances de succès. Qu'il me soit permis de dire, en passant, que nous y avons très bien réussi. Nous avons établi ensuite un programme pour l'année qui allait commencer en septembre 1944. Enfin nous avons jeté les bases d'un programme de longue haleine dont l'application se poursuit en s'amplifiant d'année en année.

Dans notre plan général, dressé selon la conception que nous avons du rôle d'une Faculté de Chirurgie Dentaire, nous avons placé au premier rang la prévention, la restauration ne venant qu'en second lieu. C'est ainsi que la prothèse,

qui figure d'habitude en tête des programmes, a été reléguée, chez nous, à la dernière place. Dans cet esprit, nous avons divisé l'enseignement clinique en sept services qui se rangent ainsi, par ordre d'importance:

- 1) diagnostic
- 2) périodontie, pédodontie, endodontie
- 3) orthodontie
- 4) chirurgie
- 5) dentisterie opératoire
- 6) couronnes et ponts
- 7) prothèse

Nous avons défini rigoureusement la compétence requise de chacun des chefs de ces sept services, ainsi que ses attributions. Chacun a l'entière responsabilité, dans son service, de l'enseignement, de ses assistants et de son personnel et même de l'inventaire perpétuel de son matériel de travail. Dans la mesure où l'enseignement et l'industrie sont comparables, nous avons voulu organiser matériellement notre Faculté sur la même base qu'une usine bien administrée. Ce qui revient à dire que nous y avons établi une autorité centrale, une judicieuse répartition des responsabilités et une division méthodique du travail. Je pousserai même plus loin l'analogie et je dirai que nous ne demandons qu'à être jugés sur la qualité de notre produit, c'est-à-dire la compétence de nos élèves. Pour nous en rendre compte nous-mêmes, nous leur faisons d'ailleurs subir les épreuves auxquelles on recourt dans les meilleures écoles dentaires des Etats-Unis, ainsi que celles que l'on propose aux candidats à la licence dans les divers Etats de l'Union. Il me fait plaisir d'ajouter que l'équipe qui a réorganisé notre Faculté s'est inspirée, du moins en partie, des programmes des grandes universités américaines, auxquelles elle a emprunté ce qui lui paraissait utilisable au Canada, après adaptation, le cas échéant, à nos besoins particuliers.

Lorsque nous avons commencé à mettre en oeuvre le nouveau programme, afin d'être bien sûrs que nous ne faisons pas fausse route, nous avons fait venir des Etats-Unis des spécialistes dont la tâche consiste précisément à faire des enquêtes

dans les écoles dentaires. Nous leur avons demandé leur avis, les priant de nous signaler nos erreurs. Ils ont bien voulu reconnaître que, dans l'ensemble, nous étions dans la bonne voie, et ils nous ont suggéré quelques modifications que nous nous sommes empressés d'apporter à nos programmes.

Ces spécialistes, qui sont membres du Board of Education de l'Etat de New-Conroe, sous-commissaire, dont l'autorité York, comprenaient le docteur Irwin s'étend à tout l'enseignement professionnel de l'Etat, et le docteur David Beier, spécialiste de l'enseignement de la chirurgie dentaire. Le doyen de la Faculté de chirurgie dentaire de l'Université Columbia, le docteur Holliday, et plusieurs de ses collègues ont bien voulu, eux aussi, visiter notre Faculté et nous donner d'utiles conseils. Il va sans dire que leur coopération nous a été précieuse et que nous leur en avons beaucoup de gratitude.

Après avoir poursuivi pendant un an notre oeuvre de réorganisation, nous avons demandé au Board of Education de l'Etat de New-York que les titulaires de notre diplôme soient admis aux examens pour l'obtention du droit d'exercer dans l'Etat de New-York, au même titre que les diplômés des grandes universités américaines.

Les mêmes spécialistes du Board of Education de l'Etat de New-York et quelques autres sont alors revenus à notre Faculté. Ils y ont fait une enquête afin de voir si nous répondions aux exigences du Board of Education, sous le rapport des programmes, de l'enseignement, de l'instrumentation, de l'aménagement, etc., et ils nous ont accordé l'équivalence que nous demandions.

Parmi les innovations que nous avons introduites à notre Faculté, je me permettrai de vous signaler, dans les cours de clinique, l'enseignement de groupe, qui équivalait à peu près à l'enseignement individuel. Voici comment nous procédons. Nous formons des groupes de 20, composés de 10 élèves de 3e année et de 10 élèves de 4e, et les étudiants de chaque groupe, pendant un mois environ,

passent tout leur temps dans chacun des divers services, ce qui leur permet d'approfondir davantage chaque matière. D'ailleurs, en 4e et dernière année, il y a plus de travaux pratiques que de cours théoriques. Ainsi, pendant les deux derniers mois de l'année, chaque élève fait un stage dans le bureau modèle où il traite des patients, avec l'aide d'une garde-malade et dans les circonstances mêmes où il exercera, plus tard, sa profession.

Autre innovation, dès 1944, notre Faculté a organisé un service d'endodontie sur une base scientifique. Les élèves y trouvent l'occasion d'appliquer à la fois leurs connaissances en biologie, en pathologie, en histologie, en bactériologie, en thérapeutique et en pharmacologie. Nous espérons commencer prochainement des travaux de recherche dans ce domaine.

Nous donnions déjà, depuis plusieurs années, des cours de perfectionnement; mais, à vrai dire, ils n'étaient pas encore très élaborés. Or, en 1945, la Fondation Kellogg entreprenait une enquête sur l'enseignement dans les Facultés de Chirurgie Dentaire aux Etats-Unis et au Canada. Comme suite à cette enquête, la Fondation Kellogg accordait à l'Université de Montréal une subvention qu'elle fut la seule à obtenir au Canada. Ce généreux concours nous a permis de développer nos cours de perfectionnement, d'y ajouter de nouvelles matières et de les rendre accessibles à un plus grand nombre de dentistes. Il en est venu, cette année, de toutes les parties du Canada, des Etats-Unis et même de France et du Brésil. Ces cours se donnent en français et en anglais.

Ajouterai-je, enfin, que la Faculté de Chirurgie Dentaire de l'Université de Montréal est la seule qui décerne aux dentistes, après une année d'étude et un examen satisfaisant, le diplôme de spécialiste en orthodontie.

Il ne me reste plus qu'à vous remercier cordialement de la bienveillante attention que vous avez prêtée à mon bref exposé des initiatives et des projets de la Faculté dont j'ai l'honneur d'être le doyen. Je suis d'autant plus sensible à la sympathie

que vous avez bien voulu me témoigner, que je sais qu'elle vous est inspirée non seulement par les liens confraternels qui unissent les membres d'une même pro-

fession, mais aussi par les liens fraternels qui unissent l'Université de Montréal et l'Association Dentaire Franco-Américaine.

CHEZ NOUS ET AILLEURS

Honneur à un de nos confrères

Le docteur Jules Thébaud, ancien doyen de l'Ecole Dentaire de Port-au-Prince, d'Haïti et spécialiste réputé dans le domaine de Périodontie, vient d'être élu membre actif de l'American Academy of Periodontology. On sait que cet organisme groupe tous les professeurs, chercheurs et praticiens, qui se sont distingués par des travaux traitant des maladies gingivales.

Importante Journée d'étude de la Société Dentaire du Saguenay

Le 4 octobre, une quinzaine de dentistes des régions de Montréal, de Québec et de St-Hyacinthe se sont rendus à Chicoutimi, pour étudier certains sujets importants de la dentisterie, en collaboration avec les dentistes de la région du Saguenay, pratiquant dans les comtés de Chicoutimi, du Lac St-Jean et de Roberval, et qui sont maintenant au nombre de vingt et un.

Dans l'avant midi, le cours a été donné par le Dr Victorien Dubé, professeur de prothèse dentaire à la Faculté de Chirurgie Dentaire de l'Université de Montréal. Le docteur Dubé a exposé devant ses confrères, les meilleures méthodes à pratiquer dans le remplacement des dents. Ce professeur a su instruire tous ses confrères par l'exposé très précis de sa technique et par son application judicieuse dans les différents cas, qui peuvent se présenter en pratique, dans le cabinet du dentiste.

Les cours de l'après-midi ont été donnés par les docteurs Jacques Demers de Montréal et Viger Plamondon de Québec. Le Dr Jacques Demers est membre du Bureau des Gouverneurs du Collège des Chirurgiens-Dentistes de la Province de Québec. Il est particulière-

ment bien renseigné dans les questions légales, qui concernent la protection du public et de la profession dentaire, dans les droits de pratique, qui la régissent.

Le Dr Viger Plamondon, maître en sciences dentaires, est un des dentistes les plus dévoués à sa profession, et il possède une compétence particulière dans les multiples lois de règle interne, que doivent observer les dentistes soucieux de bien remplir leurs devoirs, envers le public et envers leur profession.

Plusieurs autres confrères ont été appelés à donner leurs opinions sur divers problèmes de la pratique dentaire, et tous se sont avérés très soucieux d'appliquer les principes de leur art, selon les données les plus modernes et les plus profitables à la conservation des dents ou à leur remplacement, selon la nécessité des différents cas, en présence desquels se trouve le dentiste, dans sa pratique journalière.

Cet échange de connaissances entre des dentistes, venant des quatre coins de la Province, est éminemment profitable aux praticiens d'une même profession. Les dentistes du Saguenay sont reconnaissants à leurs confrères des régions extérieures, qui ont bien voulu faire avec eux un échange de connaissances aussi utiles, et ils leur consacreront l'amitié la plus confraternelle.

Cette journée d'étude se termina par une charmante réception au salon rose de l'hôtel Chicoutimi. Cette fois, la réunion était agrémentée par la présence d'un bon nombre des épouses de dentistes présents. Plusieurs de ces dames avaient accompagné leurs maris venant de Montréal. Cette présence des dames fut hautement appréciée par tous les congressistes, qui ne pouvaient désirer célébrer plus dignement et plus agréablement cette réunion.

En l'absence du président, le Dr Phi-

lippe Coutu, ce fut le vice-président de la Société Dentaire du Saguenay, le Dr J. A. Desbiens, qui présida le banquet, à l'issue duquel chacun des confrères présents fut appelé à donner ses impressions, dont la variété et la cordialité ont charmé toute l'assistance, cimentant les liens d'amitié, qui se sont formés entre tous ces confrères, qui eurent le bonheur de passer ensemble cette journée si utile et si agréable.

Les hôtes de la Société Dentaire du Saguenay étaient les suivants: de Montréal, le Dr et Madame Victorien Dubé, le Dr Jacques Demers, le Dr et Madame R. E. Lussier, le Dr et Madame Paul Poitras, le Dr et Madame Gaston Lajoie, le Dr Plessis Bélair, gérant général du Dépôt Dentaire de Montréal, le Dr Euclide Malo, le Dr Louis Lépine, le Dr Guy Langelier; de Québec, le Dr Viger Plamondon et le Dr Jean Dallaire; de St-Hyacinthe, le Dr L. Deslauriers, président de la Société Dentaire de sa région; de Donaconna, le Dr Gérard Paquin.

Les membres de la Société Dentaire du Saguenay, venant de toutes les parties de leur région, étaient les suivants: de Chicoutimi, les Drs J. E. Warrén et J. A. Desbiens, le Dr et Madame Philippe Gagnon, le Dr et Madame Paul Riverin, le Dr et Madame Chs-Eug. Massicotte; d'Arvida, le Dr Lévesque; de Jonquièrre, le Dr Gaston Lamy; de Kénogami, le Dr J. A. Savard; de St-Joseph d'Alma, le Dr et Madame Maurice Gravel, le Dr et Madame Grenon; de Roberval, le Dr Léo Ratelle, le Dr et Madame Alfred Bélanger; de Bagotville, le Dr R. Rousseau; de Dolbeau, le Dr et Madame Geo.-Henri Gauthier.

Tous ces membres de la profession dentaire, présents à cette réunion, ont été unanimes à décider avec enthousiasme, que cette collaboration confraternelle se continuera dans l'avenir, afin de favoriser la mise en pratique des meilleures méthodes préconisées en chirurgie dentaire.

Cotisation à l'A.D.C.

La province de l'Ile-du-Prince-Edouard vient de porter sa contribution annuelle à \$8.00 pour chaque membre, à partir de

1948, imitant en cela la province de Québec, qui faisait ce geste, l'an dernier, à condition que les autres provinces du Canada fassent la même chose.

Changement de représentant pour la province du Nouveau-Brunswick.

Au cours de l'assemblée annuelle de la Société Dentaire du Nouveau-Brunswick, le Comité Exécutif a accepté la démission du docteur Howard MacDonald, comme son représentant à l'A.D.C. et le docteur A. J. Coughlan, 73 rue Charlotte, Saint-Jean, a été élu pour le remplacer.

Le docteur MacDonald siégeait depuis plusieurs années comme gouverneur de l'A.D.C. et c'est avec regret qu'on le voit laisser son poste.

Le docteur Coughlan a une grande expérience dans les organisations dentaires et il sera bien accueilli au sein des dirigeants de notre Association.

Enquête sur le personnel dentaire du Canada.

Le Ministère du Bien-Etre et de la Santé Nationale vient de publier son rapport sur une enquête, qu'il avait entreprise l'hiver dernier, sur les activités de la profession dentaire du pays. Ce rapport contient des statistiques de toutes sortes sur le personnel dentaire du Canada et établit le bilan des valeurs économiques des dentistes canadiens. Ces statistiques ont été amassées avec la collaboration de l'A.D.C.

Offre de films d'éducation dentaire

Les pellicules cinématographiques suivantes peuvent être obtenues de l'Office National du Film, à 172 rue Wellington, Ottawa:

"*Nos dents*" (leur développement et leur structure)—10 minutes.

Cette bande montre la structure intime et l'élaboration des dents temporaires et permanentes. Conçu dans le but l'ins-truire, ce film porte surtout sur la vitalité organique des dents et donne des raisons, plutôt que des méthodes, de bonne hygiène buccale.

"*Au sujet des visages*"—15 minutes; en couleurs.

Cette pellicule appartient à la U.S. Public Health Service et traite de la carie dentaire, en insistant sur la nécessité d'un examen dentaire périodique et des traitements à partir de l'enfance jusqu'à l'âge adulte.

"Raconté par une dent"

Film conçu pour de jeunes enfants. Il traite des quatre points d'un programme complet d'hygiène dentaire: diète adéquate; exercice des dents et des gencives; utilisation correcte de la brosse à dents; visites régulières au dentiste.

"Les dents de vos enfants"—14 minutes.

Cette pellicule fut réalisée par le Ministère de la Santé des Etats-Unis, en 1945. Elle fut faite surtout pour les parents, touchant à tous les points essentiels pour le soin des dents des enfants et démontrant leur physiologie et leur développement.

Les membres de l'Association peuvent se procurer ces films cinématographiques à l'adresse ci-dessus et une charge nominale est exigée pour ce prêt. On fera bien de réserver les films, qui nous intéressent, d'avance, pour ne pas être déappointés.

L'Office National du Film a actuellement en production un film de vingt minutes en couleurs sur l'hygiène dentaire. Cette pellicule sera mise en circulation dans environ deux mois et on pourra la réserver à cette même adresse.

Corps dentaires pour l'armée de réserve canadienne.

Huit compagnies dentaires ont été autorisées pour l'Armée de réserve canadienne. Ces compagnies sont constituées sur une base de campagne et permettront aux anciens membres du Corps dentaire et aux récents diplômés de continuer leur entraînement et leur affiliations militaires. Pour tous renseignements, on doit s'adresser aux commandants des compagnies, des régions où le candidat réside.

Les officiers commandants et leur adresse sont les suivantes:

1ère Compagnie: Lt-Col. C. L. Strachan,
260 Av. Queens, London, Ont.

2ième Compagnie: Lt-Col. L. A. Kilburn,
Lister Bldg., Hamilton, Ont.

3ième Compagnie: Lt-Col. L. E. Kent,
256, 44e avenue, Lachine, Qué.

4ième Compagnie: Lt-Col. A. Moisan,
926, St-Valier, Québec, Qué.

5ième Compagnie: Lt-Col. W. G. Dawson,
390 rue South, Halifax, N.-E.

6ième Compagnie: Lt-Col. J. E. Abra,
1255 Av. Wolseley, Winnipeg, Man.

7ième Compagnie: Lt-Col. W. H. Smith,
256 rue Flora, Ottawa, Ont.

8ième Compagnie: Lt-Col. H. A. Simmons,
2017, 15e av. ouest, Vancouver, C.-B.

Cours de perfectionnement à l'Université

Grâce à un octroi de la Fondation Kellogg, la faculté de Chirurgie Dentaire de l'Université de Montréal offre aux praticiens des cours de perfectionnement en Anesthésie et Chirurgie, Endodontie (traitement des canaux), Prothèse et Orthodontie.

Les dates de ces cours ont été déjà publiées et on peut avoir des renseignements supplémentaires, en s'adressant au Doyen, 2900 Boul. Mont-Royal, Montréal.

Le prochain cours d'orthodontie, donné du 21 au 31 janvier 1948, donnera l'occasion à un groupe d'environ 40 dentistes du Canada et des Etats-Unis, qui se sont inscrits, de recevoir des leçons de 5 des plus grands orthodontistes du monde, réunis pour cette occasion: les Drs Joseph E. Johnson, Henry U. Barber, fils, Joseph D. Eby, Clare K. Madden, Franklin A. Squires et Leuman M. Waugh.



7 DAYS

THIS BOOK MAY BE KEPT FOR
7 DAYS ONLY
IT CANNOT BE RENEWED

JUN 15 1992

MAY 15 2008

RK
l
C37

Canadian Dental Association
Journal

v
De

480336

Journal. V13 (1947)

NAME OF BORROWER

NOV - 8 1965

NOV 2 1966
NOV 18 1966

NOV 3 1966

JUN - 6 1972

480336

